Best Practices Review

Western Health Care Corporation

February 10, 2005

HayGroup

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1.0 Background & Objectives

1.1 Project Background

Western Health Care Corporation

The Western Health Care Corporation (WHCC) is responsible for the delivery of institutional health services in the Western Region of Newfoundland and Labrador. The Western Region extends from Burgeo/Ramea on the south coast to Bartlett's Harbour on the northern peninsula and on the eastern boundary north to Jackson's Arm. It has a population of 82,000 residents. The population of the region has decreased by 14% from 95,000 persons in 1991.

The Corporation operates two hospitals:

- Western Memorial Regional Hospital in Corner Brook,
- Sir Thomas Roddick Hospital in Stephenville,

four health centres:

- Rufus Guinchard Health Centre in Port Saunders,
- Bonne Bay Health Centre in Norris Point,
- Dr. Charles L. Legrow Health Centre in Port Aux Basques,
- Calder Health Centre in Burgeo,

three nursing homes:

- Dr. J.I. O'Connell Centre,
- Interfaith Home for Senior Citizens,
- Bay St. George Long-Term Care Centre,

and medical clinics located in a number of communities. There are 262 acute beds and 446 long-term care beds in the region.

In providing services to the people of Western Newfoundland WHCC collaborates with Health and Community Services Western (HCSW)[1]. The collaboration includes the provision of office space to HCSW at WMRH and at WHCC health centers and provision of IT and other administrative services.

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[1] HCSW provides health and community services such as: Communicable disease investigation and control, Health promotion, Continuing care, Personal care homes (monitoring and licensing), Addictions services, Environmental health, Community rehabilitative services, Community mental health, Child welfare, Community corrections, Family and Rehabilitative services.

The Corporation's shareable operating expenses for 2003/04 are estimated to be $157 $ million. Shareable operations have generated an operating deficit in each of the past five years (through 2003/04). The ongoing operating deficits have not only resulted in an accumulated deficit of $23.5 million, but have created the need for a significant bank overdraft of over $15 million at March 31, 2004.

1.2 Project Objective

The Minister of Health and Community Services is concerned about the continuing deterioration of the fiscal health of the Western Health Care Corporation (WHCC). To address this situation the Minister has commissioned the Hay Health Care Consulting Group to conduct a 'Best Practice Review' of WHCC. Simultaneously, Hay has conducted a similar best practices review of the Grenfell Regional Health Services Board.

1.3 Project Scope of Work and Approach

The Best Practices Review has been designed to provide recommendations to assist WHCC in bringing about a healthy financial position while providing quality services and programs that fall within its mandate. The Best Practices Review has included:

1. Review the governance and management structures and processes and identify opportunities, if any, for improvements to better meet the organization's mandate.
2. Identification of the major cost drivers that have contributed to and that continue to contribute to the operating deficits of the Corporation.
3. Identification of efficiency measures already adopted by the Corporation to address its cost pressures.
4. A population based review of the utilization of acute care services to determine the appropriateness of the current use of key areas such as ED visits, inpatient admissions, surgeries, diagnostic imaging, and laboratory services. This will include a consideration of the appropriateness of the current rates of referral of cases to secondary and tertiary care centers.
5. A population based utilization review of long-term care services to determine the appropriateness of their current use.

6. Assessment of the current revenue generation by the region to identify opportunities to increase revenues from sources other than the Department.

7. Assessment of the current productivity of acute care, rehabilitation, long term care, community and air transportation services to identify opportunities for improvement in efficiency through comparison to best practice models and available benchmarks for similar services within and outside the Province. This has included consideration of:

   - Clinical Efficiency: Use of Same Day Surgery and Average Lengths of Stay

   - Operating Efficiency: The productivity of functional centers that provide and/or support the delivery of regional services.

8. Assessment of the IT infrastructure requirements, tools and human resources necessary for effective operations and identify strategic IT investments, if any, that would enable further cost savings.

9. Assessment of the current organization and delivery of services and compare these with best practices from across Canada to identify opportunities to reduce costs and/or improve the quality of services through alternate approaches to meeting the health needs of the populations served by the WHCC.

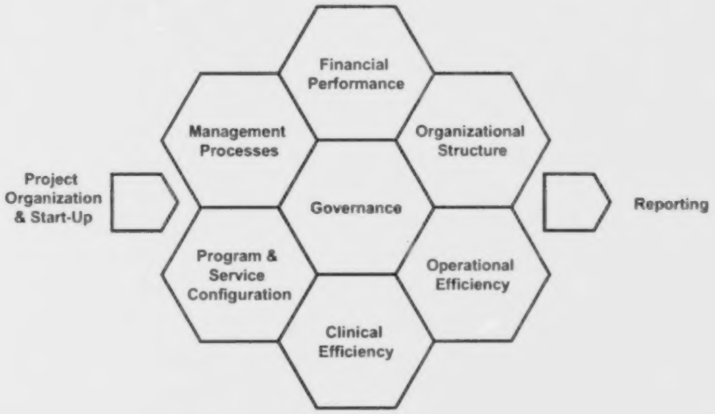
10. Determination of the priority health services that can be delivered within the funding available to these organizations and determine if there are services which are of lesser priority that might be reduced or discontinued so that resources can be reallocated to address higher priority needs.

11. Recommendation of appropriate staffing levels in relation to the current and proposed configuration of services

12. Develop a financial recovery plan to achieve a balanced budget in 2004/05 and to retire the accumulated deficit over a maximum ten-year period.

7 Phase Workplan for theBest Practices Review of WHCC.

Hay Health Care Consulting Group conducted this review. We employed a 7-phase work plan for conducting the review of WHCC. This approach is presented schematically in the exhibit following:


Project Organization & Start-Up
Financial Performance
Management Processes
Organizational Structure
Governance
Program & Service Configuration
Operational Efficiency
Clinical Efficiency
Reporting

Phase 1: Project organization, confirmation of objectives, scope and approach, resolution of methodological issues and assembly and refinement of WHCC data and measurements of costs, operating efficiency, clinical efficiency and population utilization of hospital services

Phase 2: Review and evaluation of governance and management planning and decision-making processes

Phase 3: Review of financial performance of the hospital since amalgamation and evaluation of the Corporation's financial management processes.

Phase 4: Review of programs and services to assess current need, appropriateness, efficacy and efficiency of the organization and delivery of services in the region

Phase 5: Review and evaluation of the clinical efficiency of clinical processes in the region and of the effectiveness of WHCC utilization management process.

Phase 6: Review and evaluation of the efficiency of department and functional centre operations to identify opportunities to reduce costs in the short and longer-term.

Phase 7: Reporting on the findings of the review and the development of a plan to improve governance, management, clinical efficiency and operational efficiency and a plan to restore the hospital to a positive financial position.

The review was conducted from March to July 2004 and addressed the governance, management and operations of

WHCC primarily during the period from April 2002 to through March 31, 2004[2].

1.4 The Steering Committee

The project was conducted by the consultants under the direction the Department of Health and Community Services. The study received advice from a Steering Committee made up of representatives of Grenfell Regional Health Services Board, Western Health Care Corporation, the Department of Health and Community Services and Treasury Board. The Steering Committee was responsible for directing the execution of the study and reviewing and commenting on interim and final reports. As the funder of the review, the Department reserved for itself responsibility for defining and managing the scope of work to be conducted. The members of the Steering Committee were:

Chair	Deborah E. Fry, Deputy Minister, Department of Health & Community Services
WHCC Representatives	Bernd Staeben, Board Chair, WHCC Allan Kendall, CEO, WHCC
GRHSB Representatives	Robert Mesher, Board Chair, GRHSB John Budgell, Executive Director, GRHSB
Department of Health and Community Services	Moira Hennessey, Assistant Deputy Minister, Board Services & Project Director, Department of Health & Community Services Donna Brewer, Assistant Deputy Minister, Financial Services, Department of Health & Community Services Dr. Ed Hunt, Medical Consultant, Department of Health & Community Services John Rumboldt, Director (A), Board Services & Project Manager, Department of Health & Community Services Jim Strong, Director, Financial Services, Department of Health & Community Services Beverly Griffiths, Regional Consultant, Department of Health & Community Services

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[2] Issues of data availability required that analysis of population need and hospital utilization was based on data from 2001/02.

Treasury Board	Brenda Caul, Assistant Secretary, Financial Services, Treasury Board

2.0 Financial Review

This section looks at the overall financial performance of the organization over the past five years. This perspective helps us to view the specific departmental and site findings within the context of the organization's overall financial situation. It also may help to identify other trends or changes that have affected the corporation's financial performance.

WHCC had an accumulated operating deficit of $21,052,402 at March 31, 2003[3]. Coupled with a reported[4] operating deficit of $1,500,000 in 2003/04, the accumulated operating deficit that must be addressed is about $22.5 million.

WHCC's financial statements paint a bleak picture:

- The Corporation is carrying a large Bank Overdraft ($15,325,040 at March 31, 2004).
- Shareable operations have generated an operating deficit in all of the past five years (through 2003/04).
- WHCC Board has an accumulated operating deficit of $23 - 24 million for government reporting purposes.
- Non-shareable items, although largely accounting accruals, do include the interest on the Corporation's bank loan ($1.16 million over the past five years). This represents a direct drain on the Board Funds.
- Board Funds have eroded such that the Board owed the Corporation some $2.1 at March 31, 2004.

2.1 Operating Deficit

Shareable operations have generated an operating deficit in all of the past five years (through 2003/04). As can be seen in Exhibit 2.1, the operating deficit was significantly reduced (to less than 0.4%) in 2001/02 and 2002/03, but is projected to increase (to 1.5%) in 2003/04.

The ongoing operating deficits not only have created the need for a significant bank overdraft, they have accumulated to $22.5 million for government reporting purposes. This is an amount that the Board must address through positive fiscal performance.

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[3] Department of Health & Community Services

[4] Actual operating deficit was provided by the Department of Health and Community Services after the completion of the analyses for this report.

The accumulated operating deficit does not appear in the Financial Statements. As noted in the WHCC Financial Statements (March 31, 2003):

"As at the date of release of these financial statements, the Department of Health has not completed its review and, as such, these financial statements do not include any transfers of surpluses or deficits from the Operating Fund to the Board for the March 31, 1997 to March 31, 2003 fiscal periods."

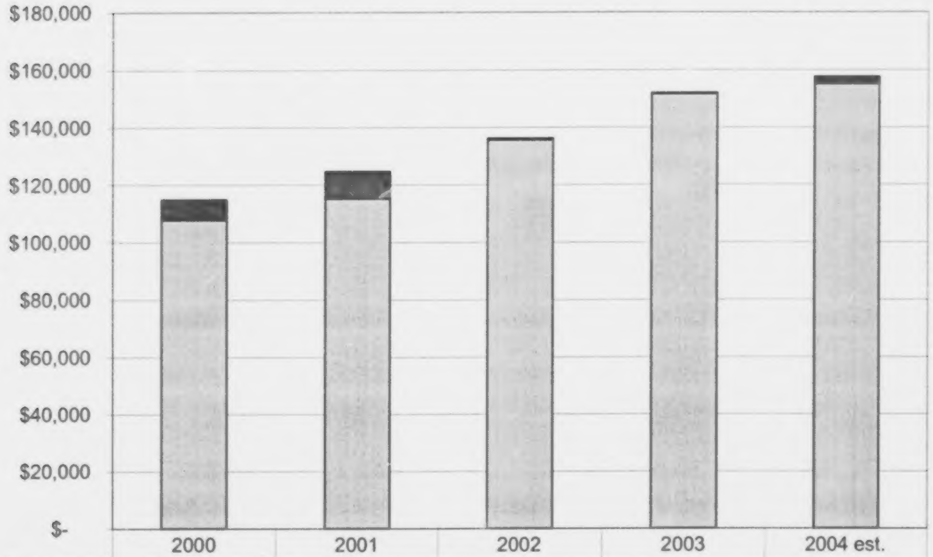
The overall deficit situation underscores the need to address and improve WHCC's fiscal performance.

2.2 Revenues

Estimated revenues for 2003/04 were $155.1 million. Revenues have increased 44% since 1999/00. Exhibit 2.2 shows the revenues by major revenue category over the period. Provincial plan revenue contributes over 80% (81.2% in 2003/04). MCP Physician revenue has increased by 86% over the period and as a result has grown to 8.7% of total revenue. Although long-term care resident income has increased over the period, it has declined as a percentage of total revenue to 3.9%. The contribution of Food services revenue has declined from 1.5% to 1.3% of total revenue.

Other Recoveries have increased by only 13.5% over the period. If they had increased in line with total revenues, their contribution to total revenue would have been $1.25 million greater in 2003/04.

Exhibit 2.1
WHCC Operating Experience



	2000	2001	2002	2003	2004 est.
■ Deficit	$7,187	$9,398	$478	$303	$2,442
□ Revenue	$107,735	$115,299	$135,675	$151,637	$155,107

Exhibit 2.2
WHCC Operating Revenues

$ in thousands	2000	2001	2002	2003	2004 est.	Change	%
Provincial Plan	87,012	91,542	110,482	123,361	125,907	38,895	44.7%
MCP physician	7,261	9,120	11,015	12,332	13,489	6,228	85.8%
Inpatient	1,078	853	1,011	1,387	1,589	511	47.5%
Outpatient	671	896	537	702	924	253	37.7%
LTC Resident	5,489	5,870	5,994	6,382	6,051	562	10.2%
Mortgage Interest Subsidy	150	150	102	54	54	(96)	-64.2%
Food Services	1,606	1,954	2,012	2,086	2,089	483	30.1%
Other Recoveries	4,096	4,469	3,833	4,495	4,650	554	13.5%
Other Revenue	371	387	689	838	353	(18)	-4.8%
	107,735	115,241	135,675	151,637	155,107	47,372	44.0%

2.3 *Shareable Operating Expenses*

Shareable operating expenses have increased by 37.1% since 1999/00 as shown in Exhibit 2.3. Benefits costs rose faster than other expense categories, increasing from 18.3% of total expenditures in 1999/00 to 18.9% in 2003/04.

Exhibit 2.3
WHCC Shareable Operating Expenses by Category[5]

$ in thousands	2000	2001	2002	2003	2004 est.	% Change
Salaries	74,789	81,648	89,384	99,818	102,688	37.3%
Benefits	13,692	14,712	16,557	19,058	19,432	41.9%
Supplies	26,053	20,970	22,239	23,401	25,823	34.6%
Other Shareable Expenses		6,897	7,433	8,756	9,243	
Long Term Debt	388	469	539	906	363	-6.6%
Total Expenditures	114,922	124,697	136,153	151,939	157,549	37.1%

Shareable operating expenses by organizational area are shown in Exhibit 2.4. Support Services (17.1%) and Education (17.8%) have increased significantly less than the overall increase of 37.1%. Medical Services increased 67.6% (partly supported by the increase in MCP Physician revenue). There was a significant shift of about $3.0 million in rehabilitation services[6] (and funding revenue) from Health and Community Services Western in 2001/02. Excluding that shift of services, Diagnostic and Therapeutic areas operating expenses were up about 42% over the period.

Exhibit 2.4
WHCC Shareable Operating Expenses by Organizational Area

$ in thousands	2000	2001	2002	2003	2004 est.	% Change
Total Administration	11,456	11,756	12,803	14,846	15,015	31.1%
Total Support Services	27,772	28,012	29,880	31,174	32,528	17.1%
Total Nursing Inpatient Services	43,338	48,354	50,171	57,427	57,868	33.5%
Medical Services	9,142	10,996	12,832	14,102	15,320	67.6%
Ambulatory Care Services	7,702	8,960	9,974	11,775	12,622	63.9%
Total Diagnostic & Therapeutic	10,978	11,886	16,245	17,298	18,634	69.7%
Education	3,281	3,379	2,994	3,793	3,866	17.8%
Undistributed	1,253	1,354	1,253	1,525	1,694	35.2%
Total Expenditures	114,922	124,697	136,153	151,939	157,549	37.1%

2.4 Capital Spending

WHCC has spent $4.0 to $10.6 million per year on capital purchases over the past five years as shown in Exhibit 2.5. The majority of funds for these purchases have been provided through provincial equipment and facility capital grants. A Capital Lease of $5.6 million in 2002/03 provided funds for equipment acquired under an Energy Performance Contract with Johnson Controls. The lease payments are to be covered through operating savings.

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[5] Supplies and Other Shareable Expenses were combined for calculation of the % Change.

[6] The departments included Physiotherapy, Occupational Therapy, Social Work, Psychological Services, and an institutional based homecare support nurse.

Exhibit 2.5
WHCC Capital Spending

$ in thousands	2000	2001	2002	2003	2004 est.
Capital Purchases	6,080	4,031	5,618	10,637	
Sources of Funds					
Prov. capital equip grant in current year	1,925	3,207	2,272	3,524	
Prov. Facility capital grant in current year	3,429	1,216	1,975	1,324	
Add: deferred capital grant from prior year	5,265	5,511	7,293	7,478	8,164
Less: deferred capital grant from current year	(5,511)	(7,293)	(7,478)	(8,164)	
	5,109	2,640	4,062	4,161	8,164
Other Contributions					
Foundations, auxiliaries and Other	437	1,092	1,461	891	
NFLD Cancer Trtmnt & Research Foundation	300	216	95		
Provincial Y2K funding	234	82			
	971	1,391	1,556	891	-
Approved Borrowing: Capital Lease				5,585	
Total Funding	6,080	4,031	5,618	10,637	8,164
Surplus (Deficit) on capital purchases	-	-	-	-	8,164

2.5 Board Fund and Bank Overdraft

The Board of Trustees Fund contains special purpose assets and those that may be expended at the discretion of the Board. Revenue consists mainly of investment income and revenue not directly related to hospital operations. Expenditures of this fund consist of hospital operating expenditures not shared by government and those approved by the Board.[7] Over the years non-shareable expenses have exceeded the revenues available to the Board so the Board has been in a negative funds position for the past five years. The history is shown in Exhibit 2.6.

Exhibit 2.6
WHCC Due from Associated Funds

$ in thousands	2000	2001	2002	2003	2004
Board of Trustees Fund	2,105	2,207	1,840	1,806	2,080
Cottages	36	204	350	570	801
Associated Foundations	25	13	28	22	65
	2,166	2,424	2,218	2,398	2,945

WHCC has carried a bank overdraft ranging from $11.4 million in 1999/00 to $18.3 million in 2000/01. The bank overdraft at March 31, 2004 was $15.3 *million*. The operating deficit is the significant contributor to the overdraft position. The bank overdraft has cost the Board Fund $1,169,670 in non-shareable interest expense over the past five years. An operating surplus is required to enable the Corporation to begin to reduce this financial burden.

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[7] WHCC Operating Fund Notes to Financial Statements March 31, 2003.

Amounts due from associated funds are also a drain on the Corporation. These are non-interest bearing with no set terms of repayment. The Corporation does the accounting for the Cottages, whose accounts are managed separately. Moneys are transferred periodically to reimburse the Corporation for Cottages expenses. The 2004 number is unusually high because the transfer was not completed before year-end. Since March, 2004 year-end the Corporation has received a payment of $609,731 from the Cottages.

2.6 *Impact of Changes on Worked Hours*

Data were only available for 2002/03 and 2003/04 fiscal years. Worked hours remained virtually unchanged overall with only a 0.58% increase from 2002/03 to 2003/04.

Exhibit 2.7
WHCC Total Worked Hours

	2000/01	2001/02	2002/03	2003/04	Change
711 Admin & Support			1,118,156	1,115,074	
712 Inpatient Nursing			1,344,164	1,345,342	
713 Ambulatory Services			187,245	195,854	
714 Diagnostic & Therapeutic			417,359	427,994	
715 Community Services			13,219	13,636	
Grand Total			3,080,142	3,097,900	0.58%

2.7 *Impact of Changes on Wage Rates*

Hours data were only available for 2002/03 and 2003/04 fiscal years. Total Worked Salaries are shown in Exhibit 2.8. Worked Salary costs increased by 24.2% over the period 2000/01 through 2002/03. About 17.5% of this increase is attributable to salary contract increases. The average wage rate (worked salary expense / worked hours) increased by 6.64% from 2002/03 to 2003/04. These changes in worked salaries cost and average wage rates would have been influenced by the combined impact of several factors:

- Staff moving up in the pay range with increased seniority
- Application of negotiated union salary increases

- Application of non-union salary increases
- Reduction in lower wage positions/hours (such as clerical or support) combined with increase in higher wage positions/hours (nursing or technical)
- Changes in the number of premium hours or premium rates for various categories of premium hours

Exhibit 2.8
WHCC Total Worked Hour Salaries

	2000/01 A	2001/02 B	2002/03 C	Change C - A	2003/04 D	Change D - C
711 Admin & Support	$ 22,224,744	$ 23,486,993	$25,192,945	13.4%	$26,670,829	
712 Inpatient Nursing	$ 32,932,263	$ 34,431,545	$40,396,311	22.7%	$43,068,800	
713 Ambulatory Services	$ 4,191,914	$ 4,757,875	$ 5,725,420	36.6%	$ 6,389,618	
714 Diagnostic & Therapeutic	$ 7,832,112	$ 10,921,195	$12,308,606	57.2%	$13,537,411	
715 Community Services	$ 411,642	$ 289,609	$ 354,309	-13.9%	$ 404,363	
Grand Total	$ 67,592,674	$ 73,887,218	$83,977,592	24.2%	$90,071,022	7.26%

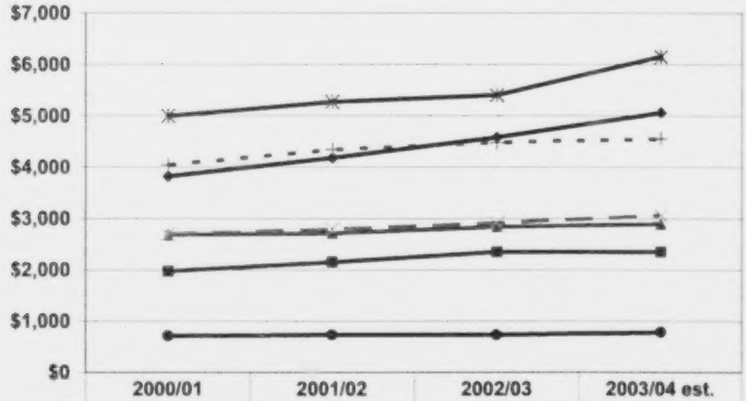
Exhibit 2.9
WHCC Average Worked Hour Rates

	2000/01	2001/02	2002/03	2003/04	Change
711 Admin & Support			$ 22.53	$ 23.92	
712 Inpatient Nursing			$ 30.05	$ 32.01	
713 Ambulatory Services			$ 30.58	$ 32.62	
714 Diagnostic & Therapeutic			$ 29.49	$ 31.63	
715 Community Services			$ 26.80	$ 29.65	
Grand Total			$ 27.26	$ 29.07	6.64%

2.8 *Impact of Supplies Costs*

Overall supplies costs have increased by 34.6% over the past five years. Supplies costs have increased less than labour costs over the period and less than increases in revenues. Several major categories of supplies expense are highlighted in Exhibit 2.10.

Exhibit 2.10
WHCC Supplies Costs ($ in thousands)



	2000/01	2001/02	2002/03	2003/04 est.
Drugs	$3,820	$4,180	$4,580	$5,060
Diag & Ther Supplies	$1,970	$2,150	$2,350	$2,350
Food	$2,680	$2,710	$2,840	$2,890
General Supplies	$2,690	$2,790	$2,910	$3,060
Med/Surg Supplies	$4,990	$5,270	$5,400	$6,150
Laundry	$710	$730	$730	$780
Plant Supplies	$4,040	$4,340	$4,480	$4,550

3.0 Governance and Management

3.1 The Province and the Corporation

The government has increasingly stressed the accountability of Regional Boards for the effectiveness, efficiency and the long-term viability of health and community services in the province.

Health and Community Service Regions in Newfoundland and Labrador are significantly dependent on the provincial government for their operating and capital funds. The public holds the provincial government accountable for the funding, organization, delivery and, to a large extent, the quality of health and community services. However, regions are private entities, owned by the regional corporation, and governed by an independent Board of Directors. Because of the public's perspective and the amount of public funds being provided to health and community service regions, the government has increasingly stressed the accountability of health regions and their Boards for the use of these public funds and for the effectiveness, efficiency and the long-term viability of the health services under their jurisdiction.

The Department of Health and Community Services is responsible for determining and ensuring a planned and coordinated system of health care and community services. The responsibilities of a regional board are to manage and deliver its mandated services in the most effective and efficient manner it can, to optimize the use of the resources available to it and to strive continuously to improve the availability and quality of its services. The regional board defines its mandate within the framework established by the Department of Health and Community Services.

3.2 Health Care Governance

Governance is the exercise by the Board of Directors of Authority, Direction and Control over the organization.

Governance is the exercise by the Board of Directors of authority, direction and control over a health care organization[8]. Fundamental responsibilities of governance are:

- defining the purposes, principles, and objectives of the organization
- ensuring and monitoring the quality of services
- ensuring fiscal integrity and long-term future

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[8] From "Into the 21st Century: Ontario's Public Hospitals, Report of the Steering Committee, Public Hospitals Act Review, Ontario Ministry of Health, Toronto, Ontario, February, 1992.

- arranging for and monitoring the effectiveness of management
- approving annual operating plans and budgets

At its most elemental, governance is the culture of getting things done. This does not mean, however, that there are no limits upon governance. Directors have a number of duties or obligations[9] in developing the culture of the corporation, including the duties:

- of knowledge[10]
- of care[11]
- of skill & prudence[12]
- of diligence[13]
- to manage[14]
- fiduciary[15]

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[9] There is a measure of overlap in the list that follows and in the corresponding descriptions in the footnotes. These are all taken from "Duties and Responsibilities of Directors of Non-Profit Corporations", by Hugh M. Kelly and Mark R. Frederick, Canadian Society of Association Executives, 1999.

[10] Knowledge must include at least the statutory framework under which the corporation operates; its constating documents; its Mission, Vision and Values; its By-laws (by which purposes become actions), and the policies adopted to guide Board decisions.

[11] The duty of care requires a Director to act honestly, in good faith and in best interest of corporation.

[12] The duty of skill and prudence requires a Director to act with practicality not necessarily expertise, and cautiously, and to anticipate consequences of actions.

[13] The duty of diligence requires a Director to act in the best interest of corporation, and to preserve its integrity and reputation; in practice, this duty requires a Director to review agenda and related material, attend meetings, discuss matters knowledgeably, and to vote on all matters unless prohibited by law or conflict of interest.

[14] The duty to manage (in a limited sense) requires the Director and the Board to enact appropriate by-laws, to appoint and supervise staff, to elect officers, to establish and monitor policies, and to comply with legal requirements.

[15] The fiduciary duty requires a Director to act honestly and in good faith; to be loyal to the best interest of corporation; to act in the best interest of corporation; and to avoid conflict of interest by subordinating personal or other conflicting interest to the interest of the corporation.

- to avoid conflict of interest[16]
- act in scope of authority[17]

Generally, the Board of a voluntary corporation is directly accountable to its corporation. The Board and corporation are accountable to the patients, clients and communities served by the organization, to the provincial government that funds the Corporation on behalf of these patients and communities as well as to staff of the Corporation.

The Board and the fiscal integrity of the organization.

A fundamental responsibility of the Board is the fiscal integrity of the organization and its long-term solvency. It is accountable to:

- the corporation,
- the community and
- the province acting on behalf of that community

Boards that allow the organization's debt to exceed its ability to repay that debt are putting the organization, its ability to provide service to the community and the health and well-being of the community at risk.

for the long-term viability of the health services in the region. The Board should be monitoring and ensuring effective fiscal management. The fiscal solvency of the organization is critical to its ability to respond to the care requirements of the community. Boards that allow the organization's debt to exceed its ability to repay that debt are putting the organization, its ability to provide service to the community and the health and well being of the community at risk. This is not good or reasonable stewardship of public and charitable funds and is not in keeping with the Board's and the corporation's long-term obligations to its community. If a Board puts the long-term solvency and viability of the organization at risk, it is incumbent on the provincial government to take action in the interest of the local community and the province as a whole. If lesser actions are unsuccessful in correcting the situation, it may be necessary for the government to assume ownership and governance responsibility for the health services in the region through the appointment of a Supervisor.

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[16] A Director cannot profit from position at expense of corporation, but must place corporation's interest first (and must remain neutral if a Director of two corporations); cannot get indirect benefit (to others); avoidance of conflict is achieved by disclosure of interest and declining to influence result.

[17] A Director must know the authority, of corporation, and of self as Director, failing which there can be personal liability if action is *ultra vires* of corporation or of Director; liability can be avoided by opposing and demanding record of opposition.

3.3 Governance Structures and Processes

The following paragraphs provide a brief description and evaluation of the governance structures and processes of the Board of the Western Health Care Corporation. The review is based primarily upon:

- Review of minutes, including all the public and in-camera meetings of the Board of Directors over the past 12 months.
- Review of selected documents related to Board governance.
- Personal interviews with the Chair and Vice-Chairs of the Board, the Chairs of Board Committees.

3.3.1 Western Health Care Corporation

The Western Health Care Corporation was formed in 1996 through the amalgamation of 6 autonomous health boards.

The Board of Directors is to be composed of not less than nine and not more than eighteen members. The Minister of Health and Community Services appoints all of the Directors. Currently there are 13 members of the Board.

3.3.2 Composition and Size of Board

The Bylaws of the WHCC prescribe the size and composition of the Board, as has been described above. The current size of the Board is reasonable for its objects and responsibilities. Also, the size allows it to have members that reflect the various geographies and communities to be served by the Corporation.

We have found, and governance literature generally supports our conclusion, that Boards of voluntary organizations are most efficient and effective when there are between 15 to 20 members. And fewer are often better.

Current Board size is not a significant impediment to effective decision-making.

And perhaps most importantly, the current size is not a significant impediment to effective decision-making by the WHCC Board. Changing the number of Board members is not critical to the future success of the organization.

The persons who serve on the Board of WHCC are unquestionably dedicated and hard working, and they firmly believe that they fully comply with their duties.

Directors have a duty to make the interests of the corporation pre-eminent in their decision making.

Directors have a duty[18,19] to make the interests of the corporation pre-eminent in their decision making at the Board. WHCC Directors assert that they both understand and observe their obligation to make the interests of WHCC pre-eminent in their consideration of issues and their decision-making. However, it appears that many Directors have an inherent inability to give priority to the interests of WHCC over the interests of their home community. There is a clear and repeated articulation of a belief by many of the appointees of that they serve on the Board to represent and advocate for the interests of their home community. Not only is this proposition not necessarily so, its articulation demonstrates a perspective that places the sequence of priorities in exactly the reverse of what the fiduciary obligation requires. To the extent that the interest of the member's home community is equated to, or even placed above the interest of WHCC as a whole, there is an inadvertent omission to place the interest of the Board in the priority required by this duty.

A significant number of Board members come to the Board with the agenda of their home community.

Many Board members seem to perceive that they have an accountability, through appointment, to their home community and, thus, an interest in furthering the agenda of that community. This intended result can only be expected to continue to place the interest of the home communities at par, if not above the interests of WHCC. This will, and has, created conflict between the interests and advocates of the different communities. Of greater importance, the Board is impeded in developing a focus solely on the interests of WHCC. Some Board members attempt to reference and root the interests of WHCC with those of each individual community served as reflected by the members appointed from each community on the WHCC Board.

This is not to say that the interests and history of the communities served by the Corporation should not be considered and given importance in the decisions of the Board of WHCC. It is only that continuing to make appointees who perceive themselves to be accountable to their home

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[18] The duty of diligence requires a Director to act in the best interest of corporation, and to preserve its integrity and reputation; in practice, this duty requires a Director to review agenda and related material, attend meetings, discuss matters knowledgeably, and to vote on all matters unless prohibited by law or conflict of interest.

[19] The fiduciary duty requires a Director to act honestly and in good faith; to be loyal to the best interest of corporation; to act in the best interest of corporation; and to avoid conflict of interest by subordinating personal or other conflicting interest to the interest of the corporation.

community, keeps the Board looking myopically at the needs of individual communities rather than the region as a whole. It is an impediment to the organization transcending local interests to create a health and social services system that can meet the needs of the entire community in the current and in the future.

The Minister and the Board should alter the appointment and orientation of new Board members so that appointees clearly understand that they are appointed to reflect the perspectives of their local community, not to represent it. The responsibilities of Board members to the Corporation and to the region as a whole should be emphasized.

Recommendations:

It is recommended that:

(1) The Minister of Health should ensure that appointees to the WHCC are aware that they are appointed to reflect the interests of, not represent or advocate for their home communities.

(2) The Board of WHCC should modify the orientation process for new Board members so that they are clearly made aware of their responsibilities to the Corporation.

Board Orientation

Given the considerable complexity of health care in Newfoundland and Labrador generally and of the operations of WHCC in particular, what has been provided as orientation for new Board members is quite useful, but could be improved. It does not meet the training needs of new (and perhaps longer serving) members of the Board. Although the Board of Trustees Handbook provides a comprehensive survey of the foundational information required by a member of the Board of the corporation, a more comprehensive program of orientation would unquestionably assist Board members to understand the intricacies of the duties and responsibilities of the office, and such a program should be both mandatory and involve all Board members.

The Board should establish a formal orientation program for new directors.

The Board should establish a formal and reasonably detailed program (which may include written materials, a building tour, and personal presentations by other Directors and staff of the Corporation staff) for the orientation of Board members. Participation in the Board orientation process should be mandatory and a condition of appointment to the Board. The Board should encourage Directors, both new and those with longer tenure, to attend sessions on health services governance. Additionally, the Board should build on the current work of its Policy Committee to embark upon a planned program of Board development focusing on the Corporation as a whole.

Board Self Assessment

Many health care boards in Canada have instituted assessment processes intended to evaluate their performance. These processes provide for regular evaluation of the efficiency and effectiveness of Board structures, processes and decision-making. The Board should implement a Board Assessment process that includes both self-evaluation and evaluation of their decision-making processes by representatives of key stakeholders such as Senior Management, Senior Medical Staff, Union Leadership, the Foundation Board and Community Leaders and senior staff of the Department of Health and Community Services. This would both provide differing perspectives on the operation and effectiveness of the governance processes of the Corporation as well as reinforce the accountability of the Board not only to the Minister of Health and Community Services, but also to the communities served and to the staff of the Corporation.

It should be noted that at its May 2004 meeting the Board passed a resolution calling for the development and implementation of a Board Self Assessment Process.

Recommendations:

It is recommended that:

(3) **The Board should develop and implement a formal, comprehensive program for the orientation of Board members.**

(4) **The Board should make participation in the Board orientation program mandatory for all Board members.**

(5) **The Board should develop a Board evaluation process that includes input from Board members and key stakeholders.**

3.3.3 Committee Structure

The Bylaws provide that the Audit and Finance Committee is the only standing Committee of the Board. Additionally the Board "may from time to time establish any special committee as may be necessary or advisable.....[20]". Currently there are also 4 Special Committees of the Board

- Executive Committee
- Policy Committee
- Ethics Committee
- Quality Council

Additionally, the Board receives input from several District Advisory Committees who present the interests, issues and concerns of the communities served by WHCC.

These committees and their functions are reasonable for the governance of a regional health services authority like WHCC. Most of the work of the Board is conducted by the full Board without delegation to committees, which is not an unreasonable approach to governance. However, it means that the full Board will need to carry a very full workload. In many governance models, most of the work of the Board is delegated to standing and as necessary ad-hoc committees of the Board. The benefit of this approach is that committees can review information and debate issues more comprehensively than could be achieved by the full Board. Committees would then:

- Report their recommendations for Board action.
- Support their recommendations with documentation of issues related to the recommendations and related discussions that took place at the committee level.
- The committees should also provide the detail of the any alternatives considered, for the information of the full Board.
- The committees should also provide the minutes of their meetings for the information of the full Board.

Except in unusual circumstances, these processes and practices will minimize the need for the full Board to reconsider and re-debate issues that have been dealt with at the committee level. In its review of its governance processes, the Policy Committee of the Board should consider the desirability and feasibility of delegating its work to committees of the Board. In reviewing the recommendations of subcommittees, Board members can ask the subcommittee to clarify facts, issues and recommendations; however, the Board should not repeat the debate that has already taken place at the subcommittee level and that has been documented in the committee's report and meeting minutes. The Board should have enough information to vote on the recommendation of the Committee, accepting or rejecting the recommendation as appropriate. This approach to deliberation and decision-making makes Board meetings more efficient. It allows the full Board to focus and devote sufficient time to its deliberations on the most critical issues.

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[20] WHCC Bylaws, as amended April 2, 1998.

3.3.4 Board Processes

Public Meetings of the Board

WHCC Board meetings are not open to the public. There are some valid reasons for excluding non-members from Board meetings, for example, because in the discussion of the matter, there could be disclosure of personal information; or that the matter involved pending litigation. On the other hand, an often posed reason that is not defensible, is that the Directors could feel constrained in expressing their views if the public were present. There are statutory examples of how to resolve the issue of whether and when the exclusion of the public is defensible.[21] A reasonable policy would provide that, subject to limited exceptions, meetings of the Board and its Committees would be open to the public, and no person could be excluded from a meeting that is open to the public except for improper conduct. The public may be excluded, however, when the subject matter under consideration involves the one of the following:

- the security of the property of the Board;
- the disclosure of intimate, personal or financial information in respect of a member of the Board or Committee, or an employee or prospective employee, or a patient or member of a patient's family;
- the acquisition or disposal of real property;
- decisions in respect of negotiations with employees;
- litigation affecting the Board.

We encourage the Board to adopt a policy for public meetings of the Board, narrowly defining what matters may be discussed in camera, and this policy should provide that the majority of the business of the Board should be conducted in public.

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[21] The example that follows comes from the *Education Act*, R.S.O. 1990, ch.E.2, as amended, §207.

Recommendations:

It is recommended that:

(6) The Corporation should establish a policy that opens meetings of the Board of WHCC and of its committees to the public.

(7) The Board should establish a clear policy that articulates a narrowly defined set of subject matters that will be discussed in camera by the Board and its committees.

3.3.5 *Information to Support Decision-Making*

The Corporation should improve further the utility of the information that is used to measure and monitor performance to support both governance and management.

Board members generally feel that they receive adequate information to support the functioning of the Corporation. And we find that the Board is kept well informed of the operations and issues related to the services of the Corporation. Although most Directors feel that the Board is effectively kept apprised of the financial performance of the organization, Board and management continue to work on getting better, more meaningful and more timely financial and performance information to support the operations of the Board. We feel that management should focus its efforts on improving the information that it provides to the Board on the efficiency, effectiveness and quality of care and service in the region. Potential areas for improvement are discussed and described in later sections of this chapter of our report.

Recommendation:

It is recommended that:

(8) The Board Chair should direct management to enhance the information supplied to the Board related to the Board's critical governance responsibilities.

3.3.6 *Defining & Maintaining Purposes & Principles of Health Service Organizations*

Planning is a critical component of governance and management.

The health care industry has clearly recognized the importance for health service organizations to develop coherent sets of objectives and plans. Planning is recognized as a critical component of health services governance and management. Boards should develop plans in response to the needs of the community and in collaboration with the community and other health care and social service agencies. Effective health services planning should include the following elements:

- Identifying the communities to be served by the organization
- Establishing the objectives for the organization (Mission, Vision and Core Values)
- Selecting the health needs of the composite community that might be appropriately served by the organization (Role Statement)
- Defining and describing the programs and services required to be offered by the organization to respond to the health needs of the population and achieve the organization's objectives (Long-Range Plan)
- Detailing plans for implementing the program and service goals of the long-range plan and thus achieving the Vision and fulfilling the Mission of the organization (Strategic Plan)
- Translating the objectives, plans and strategies into specific activities to be initiated in the next fiscal year (Operational Plan)

A Mission/Vision Statement, Role Statement, Long Range Plan and Strategic Plan are critical to the successful governance and management of a health service organization.

We believe that a Mission/Vision Statement, Role Statement, Long Range Plan and Strategic Plan are critical to the successful governance and management of a health service organization. Decision-making in the absence of clearly articulated Long- Range and Strategic Plans is often uncoordinated and inconsistent. The complexity of a health service region and its levels of governance and management require that decisions must be made with reference to a set of long-term objectives (Mission/Vision/Role) and plans for achieving these objectives (Long-Range and Strategic Plans) that are generally accepted by the critical stakeholders in the services of the region. These documents provide a framework for annual operational planning and budgeting. If prepared through the collaboration of the Directors, the medical staff, management and Corporation staff and in consultation with the community and other health care agencies, they can become the basis for clear communication of the Corporation's priorities and for collaborative and supportive actions to achieve the Corporation's objectives.

In keeping with the need to distinguish between governance and management, organizational objectives and long-range goals for programs and services should be considered primarily a responsibility of governance; strategies and operational plans for achieving these objectives and goals should be considered primarily a responsibility of management. Although primarily a responsibility of governance, it is unrealistic to expect that Boards can or should develop long range objectives or plans independently. Although led by the Board, management staff of the organization will support the development of these statements and plans.

At its December 9, 2003 meeting, the Board of WHCC adopted its Strategic Plan. The plan follows the template established by Treasury Board to ensure compliance with the requirements of the accountability framework for public bodies established by the Government in 2000. Elements of the plan include:

Mission The Board adopted the following statement as its Mission:

"By 2010, Western Health Care Corporation will match service delivery to the health needs of those we serve in specified areas in order to improve quality, sustainability and accessibility of health care services in the region."

Vision It then went on to articulate a vision for the organization: Its vision is:

Western Health Care Corporation's vision is of "the highest quality health care"

Values And the Board has also developed a list of the organization's values. The Board has articulated the following:

The core values explain the organizational character promoted by the WHCC Board. They identify a range of actions and behaviours that are critical to the achievement of the organization's mission and vision:

- Accountability
- Collaboration
- Commitment
- Equity
- Honesty
- Respect
- Transparency

Communities to be Served

The Board has identified, in keeping with its regional mandate that it will provide provides health care services to the residents of the Western Region of Newfoundland.

Role Statement

And the organization has clearly articulated the role it will play in responding to the needs of these communities in:

- Primary Health Care
- Emergency Care
- Secondary Acute Care
- Adult Rehabilitation Care
- Long Term Care (Institutional and Assisted)
- Education

And the Strategic Plan incorporates two Strategic Issues that will be addressed by management to allow the organization to fulfill its mission and realize its vision.

- Quality of Inpatient Utilization Data
- Policy Direction

By following the Department's template the Corporation has achieved the structural requirements of a successful strategic plan, but we are concerned by both the choice of direction and the choice of language. In its current form the document will not be effective in either setting the direction for the organization or instilling any excitement about the organizations future among its internal and external stakeholders.

The Mission statement adopted by the Board is more of a goal statement than a description of the reason for the organization. A better expression of the mission might be...to provide high quality, accessible and sustainable health care services in response to the health needs of those we serve. The role statement (statement of business lines) can serve to limit the range of services to those that are within the scope of practice of the region.

In their current form the Board's 'Strategic Issues' will focus the organization on 'means' and not 'ends'.

And the issues do not provide strategic direction to the organization. They are much more about tools that will enable a direction than the direction required by the organization. In their current form they will focus the organization on 'means' and not 'ends'. We believe the ends implied by the issues are appropriate to the organization. The Board should develop statements of strategic directions related to improving quality and efficiency and related to access to quality services taking into account the human and economic resources of the region.

Recommendation:

It is recommended that:

(9) **The Board of WHCC should revisit its articulation of 'strategic issues' to focus on the desired directions for the organization.**

3.3.7 Ensuring & Monitoring Financial Health

For the Board of a regional authority to exercise its responsibility in ensuring effective management of the financial health of the organization, there must be strong processes for operational planning and budgeting and for reporting on progress in achieving these plans and budgets.

The primary link between a public body's budgeting and strategic planning processes is the annual operational plan.

"The primary link between a public body's budgeting and strategic planning processes is the annual operational plan, which translates long-term goals and objectives into a clear operating framework for a one year period……. Operating plans generate the context for the detailed financial information required in the annual budget."[22]

Although the Corporation has developed strategic and long-range plans to guide its future growth and development, operating planning and budgeting continues to focus on incremental changes based on prior years activity and performance, driven by providers' descriptions of needs, rather than (as it should be) flowing from the Corporation's long term objectives and targets for patient volumes and related workload.

A Board should start the operational planning process by setting the annual objectives for the organization and defining the parameters for operational planning and budgeting.

The Board of a health services organization should start the annual operational planning process by drawing from the organization's strategic and long-range plans to set the annual objectives for the organization and to define the parameters for operational planning and budgeting. Without clearly articulated objectives, it is not possible for the Board to evaluate the organization's performance. The WHCC Board is not setting annual objectives for the organization.

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[22] Government of Newfoundland and Labrador Treasury Board, "Achieving Excellence 2000-A Guidebook for the Improved Accountability of Public Bodies".

The Board must take the initiative in setting operational goals, performance targets and initial targets for the size of the organization's operating surplus or loss for the coming year. Budget targets should take into account the Board's responsibility to ensure the current and future financial health of the organization. The Board should then critically review and approve the operating plan and budget developed by management to achieve its objectives and to accommodate its budget parameters. If the Board's resources are insufficient to implement the Board's plans, then the Board of Directors must take responsibility for directing management to defer initiatives, suggest alternative strategies for achieving the organization's vision or, if necessary, to rethink the vision for the organization. Although management reports to the Board on its progress in developing the operating plan and budget for the organization, the Board does not seem to be formally establishing parameters for the organizations operational planning and budgeting processes.

Recommendations:

It is recommended that:

(10) **The Board should draw upon its Strategic Plan to formally articulate annual objectives for the organization.**

(11) **The Board should formally articulate the organization's parameters for its annual operating plan and budget.**

The Board's strategy in dealing with operating losses has put the financial health of the organization in jeopardy.

Although the Board is not setting annual objectives for the organization, it does review and then approve the budget for the organization. But, the Board's strategy in dealing with organization's operating losses (budgeting for operating losses and accepting costs and losses that exceed its budgets) has put the financial health of the Corporation in jeopardy.

The Board of Directors has devoted significant attention to the Corporation's financial position and deficit. The common theme of the Board's deliberations seems to be that the Board wishes to be fiscally responsible, has instructed management to assess and report upon alternatives by which WHCC could eliminate the gap between expense and revenues, and considered such reports. But the Board has not taken the necessary actions to reduce costs, increase revenue and/or reduce services to better match the operating funds available to it. For example:

> *At it's meeting in December 2003, the Board Considered the response from Department of Health & Community Services regarding the Board's request for authorization of it's Budget for 2003/04. The Board was informed that correspondence had been received from Minister Marshall advising that the Corporation's recast budget of ($1.7) Million operating loss was not approved. The Minister referred to the former Deputy Minister's request that the Corporation develop a plan to balance the budget.*

This reference seems to provide an unequivocal statement form the government that the Corporation was expected to operate within the funds available to it.

However, rather than taking action to reduce its costs, the Board considered a the outcome of a meeting with the Minister and Deputy Minister in late July and Deputy's support for completion of a Best Practices Review. Based on the outcome of that meeting, the Board concluded that the Corporation's operating deficit would yet be approved and that the best course of action was to lobby with local MHAs for more funding for the Corporation.

> *The Deputy was quoted as commenting at the meeting that they would approve the budget, subject to a recovery plan coming out of the Best Practices Review. It was suggested that a meeting with all area MHA's be set up as soon as possible to discuss the Department's current position and lobby for funding for the Corporation.*

It seems that Board is unwilling to accept its own responsibility for managing its affairs within the approved funding. The Corporation continues operations without making the necessary changes to achieve a surplus. In fact, at the same December Board meeting, the Board approved an expansion of service at its Corner Brook clinic which would increase the Corporation's operating costs by $75,000 per year. The Board approved a plan wherein "the annual cost of the clinic, which is currently $175,000 will rise to $250,000" without any provision for an increase in revenues or other actions to fully off-set the increase in costs

The Board continues to wait for the province to increase funding to solve its problems or to grant permission for the Board to take action.

The Corporation continues to incur operating losses and watch its working capital position deteriorate. The Board continues to wait for the province to increase funding to solve its problems or to grant permission for the Board to take action. It is unwilling to take action on its own to preserve the fiscal integrity of the organization. It should be noted, however, that the Government and the Department have not been supportive of initiatives proposed by the Board. There are numerous examples of reasonable actions proposed by the Board that, when asked, have not been approved by the Department; and in most cases the Department has explicitly instructed the Board not to take action.

It is hoped that the findings of this Best Practices Review will provide the Corporation with insight into the appropriate actions that it might pursue to achieve an operating surplus and over time retire its debt and/or provide evidence that the Department should increase funding to the Corporation. It is also hoped that the Department will be supportive of these initiatives to improve care and reduce costs.

The Corporation must be more aggressive in pursuit of opportunities to reduce costs through improved clinical and operational efficiency and/or reduced content of care before it considers reducing service volume or seeks additional funding from theDepartment.

It should be noted that effective accountability requires a commitment by both parties to fulfill their respective roles and to respect and support the other party in the process. The Department must clearly identify its expectations (both service delivery and financial) to the Board, and then allow the Board to make the changes necessary to meet these expectations. In turn, the Board should take more responsibility for the financial health of the region by insisting that management aggressively pursue opportunities to minimize costs. The Board should direct management to more aggressively pursue opportunities to increase non-government revenues or reduce costs through improved clinical and operational efficiency and/or reduced content of care before considering reductions in the volume of services or seeking additional funding from the Department. And if there are no further opportunities to increases revenues or reduce costs, rather than incur losses, the Board must be prepared to implement service restructuring that will reduce costs and finally, reduce service volumes. It cannot continue to spend more funds than are provided by the Department of Health and Community Services. And in the end, it should not look to the Department to provide license for it to take action. As the Board has witnessed repeatedly, the Department, if asked, is unlikely to, or be allowed to give permission for unpopular changes in the efficiency, content or location of services. The Board is accountable for the operation of health and community services in the Western region, and it must assume the responsibility to take the actions necessary to ensure the continuing fiscal integrity of the organization.

Recommendations:

It is recommended that:

(12) **The Board should take more responsibility for the financial health of the Region by insisting that management aggressively pursue opportunities to minimize costs and maximize non-government revenues.**

(13) **The Board should take more responsibility for the financial health of the Region by implementing reasonable service restructuring to achieve necessary cost savings.**

3.3.7.1 Monitoring Financial Health

The Board is receiving reports that provide the annual budget, current month actual, budget and variance and YTD actual, budget and variance. A written narrative that summarizes the region's current position and explains the sources of variances in revenues and expenses supports these reports. However the focus is on explaining the variances, not on initiatives that might correct for forecasts of significant year-end variances from plan.

Importantly, the Board also receives a forecast of the region's year-end position based on activity to date and known endogenous and exogenous events

There are weaknesses in the analyses of variances in current and projected performance.

There are several opportunities to improve the Region's approach to analyzing variances from plans and budgets. We feel that financial and performance reporting to the Board should help it to understand:

- the causes of variances from plan,
- the impact of the variances on the running rate of costs for the Corporation,
- the potential impact on year-end results.

and should identify variances that might be corrected through management initiatives. Thus variances from budgeted levels of expenditure should be identified and measured as variances that are caused by:

- Variances from planned volumes/workload
- Variances from planned unit costs (of labour or materials)
- Variances from planned levels of productivity

Making these analyses available to the Board would allow Board members to better exercise their responsibility for monitoring and maintaining the financial health of the organization.

Thus we feel that the effectiveness of financial reporting to the Board could be enhanced with the following changes:

- The narrative component of the report should be expanded and enhanced to provide a discussion of opportunities for corrective action to achieve the operating plan or budget targets and an explanation of actions undertaken or planned to correct for negative variances. We further suggest that the Board should direct management to propose and undertake these mid-year corrective actions to achieve budgeted levels of performance.
- The reports should present selected volume statistics for the corporation as a whole (separations, patient days, etc.) and selected operating units and services (OR Cases, Emergency Visits, MRI Exams, etc.), and variances from the plan.
- The reports should also include a set of corporate performance indicators that present a comparison of the corporation to benchmark levels of performance of other like organizations (or elements of like organizations). Indicators for the hospital, for example, could include nursing and total paid hours per patient day; total paid hours per adult weighted case; adult and newborn average length of stay; administrative expenses as a % of total operating expenses, etc. Also, performance on these indicators should be contrasted with budgeted levels of performance. The reports should provide explanations of variance and planned corrective actions for these productivity measures as well as for financial measures.
- And, it should not be acceptable for the organization to achieve only average levels of performance relative to its peers. WHCC should be striving to be a high performing organization.

It should be noted, however, that the organization is improving the information available to support variance analysis. It now needs to take advantage of this information to better control costs in relation to plans. And the Board has recently taken action in this direction. At its May 2004 meeting the Board noted that the Audit & Finance Committee had discussed setting up financial indicators related to workloads. It was reported that cost per patient data is currently available. It was suggested that a process be established to provide operating statistics.

Recommendations:

It is recommended that:

(14) The CFO should further expand and enhance financial and statistical reporting to the Board to include more comprehensive analyses of variances from plan that provide not only the cause of the variance but also planned potential corrective actions.

(15) The CFO should expand financial reporting to the Board to include reporting of the clinical and operational performance underlying the region's financial performance.

(16) The CFO should further expand and enhance statistical performance reporting to the Board to provide comparisons with similar organizations in Canada.

3.3.8 Ensuring & Monitoring Quality of Services

A fundamental responsibility of governance is ensuring and monitoring the quality of services.

A fundamental responsibility of governance is ensuring and monitoring the quality of services and continuing improvement of quality in all aspects of operations. WHCC has recognized this as one of its fundamental activities and seems to have assigned this responsibility to its Quality Council.

The Quality Council meets monthly, reviews performance indicators and receives reports from the Performance Improvement Teams. Performance Improvement Teams have been established for each patient care, diagnostic, therapeutic, and support service. A member of the senior administration acts as sponsor for each Team. Each senior administrator sits on four or five teams and they find it difficult to consistently participate. Physician involvement in the teams is uneven.

Quality of care indicator measurement results and trend data is routinely being provided to the Board.

A wide range of quality of care measurements and trend data are routinely being provided to the Board. The Board is to be commended on its structured approach to measuring and monitoring quality of services. The Quality Council monitors performance of the organization through reviews of corporate performance indicators contained in the corporate scorecard.

The corporation's performance indicators relate to the CCHSA four dimensions of quality:

1. Responsiveness: How the organization responds to the changing needs and expectations of its clients/environment.

2. System Competency: How well the organization achieves of desired benefit for clients with cost-effective use of our resources.

3. Client Community Focus: How well the organization encourages community participation and partnerships.

4. Work-Life: How well the organization encourages performance excellence, involvement of staff personal and professional growth, health, well being and satisfaction.

The Quality Council has a predetermined schedule for review of these corporate indicators. The schedule ensures that there is at least 6 months between reviews of individual indicators. However, if a particular indicator result suggests the need for action, the Quality Council often does not confirm that the necessary action has been taken until it next reviews that indicator.

The Board should establish a multi-level set of indicators of quality for use in monitoring and ultimately maintaining and improving quality of service.

We believe that the Board, through the Quality Council, should establish a multi-level set of indicators of quality for use in monitoring and ultimately maintaining and improving quality of service.

At the first level the Board, through its Quality Council, should routinely (at each meeting) receive performance measurement results for a small number of more critical, overarching corporate performance indicators. Management should identify critical or sentinel indicators and/or summary metrics related to each dimension of quality that can be used by the Board to measure the changing performance of the Corporation over time[23]. It is important for the Board to be assured that the Corporation is maintaining or improving its levels of performance. And it is important for the Board to be assured that management is taking corrective action if performance begins to deteriorate.

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[23] The number of these key indicators should be appropriated for Board level reporting.

These indicator results should be provided for information only, unless the results fall outside a predetermined performance range. Where the performance is outside the range, the Quality Council should require management to report on the steps being taken by Region to address the factors that have contributed to the deviation in performance, and to identify whether changes in policies are recommended. The Quality Council should report to the full Board the measurements, an explanation of the reason and locus of any deterioration in performance and any resulting management initiatives.

At this level consideration should be given to routine Board monitoring of key corporate indicators such as:

- Patient satisfaction
- Unplanned readmission rates
- Complications following surgery
- Infection Rates
- Risk adjusted in-hospital mortality
- Hospital and program occupancy rates
- Length of stay performance relative to CIHI expected length of stay

Additionally, given its mission to address the health needs of the community, consideration should also be given to reporting, at least on an annual basis on changes in the health status of the population and comparisons with like communities across Canada.

At a second level the Quality Council should be monitoring, as it is, a wider range of indicators related to each of the CCHSA dimensions of quality. Perhaps quarterly a meeting of the Council should be devoted to one of these dimensions of quality. In this way, each year the Council will review each dimension, and any findings and necessary corrective action reported to the full Board.

And, as a third level of measurement, the Quality Council should be monitoring a similar range of indicators for each clinical program, for each site, for each service modality and each function[24] offered by the Region. Again, these indicator results should be provided for information only, unless the results fall outside a predetermined performance range. Where the performance is outside the range, the Quality Council should require management to report on the steps being taken by Region to address the factors that have contributed to the deviation in performance, and to identify whether changes in policies are recommended. The findings from these indicators should be useful in directing the work of the region's Performance Improvement Teams.

As has been recognized and implemented by the region, it is important to monitor the selected indicators over time so that the region can be confident that quality of care is being maintained or enhanced.

The Region should compare its performance with external benchmarks to determine whether it's performance is as good as or better than peer organizations.

The Region should compare its performance with external benchmarks to determine whether its performance is as good as or better than peer organizations. This will make the information provided to the Board much more useful in understanding the need for and/or opportunities to improve the quality of care and service being provide by the region.

Although the Board is receiving measurements of quality, the minutes of the Board do not show evidence of any recommendation to establish or modify policies related to patient care as a result of this information. While specific risk situations are discussed, and general operational concerns that might impact risk or quality are raised, they are not explicitly linked to existing or needed policies or initiatives.

Also, significant utilization issues are sometimes identified by the Performance Improvement Teams or during the review of Corporate Indicators, and the Quality Council discusses the importance of these issues being brought to the attention of the Regional MAC. However, it is not clear that the Regional MAC consistently takes action, and there is seldom any documented follow-up by the Quality Council.

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[24] The Region might consider developing or obtaining quality measurement tools for other key areas of performance such as dietary, housekeeping, imaging, laboratories and providing summaries of these measurements to the Quality Council.

Recommendations:

It is recommended that:

(17) **The Board should direct that management further enhance the Board's Corporate Performance Improvement Program to provide for more comprehensive monitoring of quality, for comparisons with external benchmarks and for more focused and structured reporting to the Board.**

(18) **The Quality Council should ensure that important utilization and quality issues identified during Performance Improvement Team presentations or corporate indicator reviews are referred to the appropriate individuals or groups and followed up at subsequent meetings to ensure that appropriate action has been taken.**

3.3.9 Monitoring Effectiveness of Management

The Board of a health services organization bears overall responsibility for the effectiveness of the organization in fulfilling its mission. It is, however, dependent on management to provide it with sufficient information to fulfill this responsibility. We feel that reporting structures and mechanisms established by WHCC have not allowed the Board to effectively monitor the effectiveness of management.

The Board receives regular reports from the Chair and CEO. Each report provides an update of current issues facing the corporation. The Board also receives a report from each of its committees. These committees are actively engaged in monitoring operational and management issues facing the organization.

As we have discussed, the Board is not setting annual objectives against which the effectiveness of management can be evaluated. Although its strategic plan will communicate to management the Board's desires regarding the organization's focus, management has not established a framework for formally and systematically reporting on its actions in relation to these directions. And as we have discussed, the Board is not receiving overarching reports of the organization's overall performance related to its:

- Responsiveness to community needs
- Quality of care

- Efficiency of care
- Quality of Work life
- Improvements in health of the community

in a way that would allow it to track the organization's/management's performance or success in fulfilling the corporation's mission and achieving the corporation's vision.

3.3.10 Annual Objectives and Performance Review of CEO.

The annual process of setting and communicating the objectives for the CEO is critical in setting the direction for the entire organization.

Formally, the Board interacts with and provides direction to the organization through its CEO. The annual process of setting and communicating the objectives for the CEO is critical in setting the direction for the entire organization. The review of the CEOs performance in relation both to these objectives and to the responsibilities of the position is a critical tool for reinforcing the importance of both the objectives and also the values and desired culture of the organization. The performance of the CEO is critical to success of the organization.

In setting annual personal objectives for the CEO, the Board should provide both critical responsibilities and also measurable objectives related to those responsibilities and related to the Board's annual objectives for the organization.

The annual objectives for the CEO should include, as their fundamental component, the annual objectives for the corporation. As has been discussed, the Board of WHCC does not set annual objectives for the organization.

The CEO evaluation process used by the Board in 2002/03 was based on a 360-degree evaluation process soliciting responses from each member of the Board, each member of Senior Management and a self-assessment by the CEO. This baseline evaluation was considered a formative process, that being done for the purpose of shaping future direction. The Board has indicated that once the Corporation's Strategic Plan is completed, the evaluation will be revised based on the goals contained in that plan.

In evaluating the critical responsibilities of the CEO, the Board might consider extending the "360 degree" feedback process to include the following:

- CEO for self-evaluation
- Board of Directors
- Medical leadership
- Executive Team
- Selected managers and front-line staff

- Selected external stakeholders

A summary report of the overall evaluation of the CEO should be prepared and reviewed with the Board Chair and then with the CEO. The report should consider the CEO's achievements relative to the annual goals and objectives for the region, relative to his personal goals and objectives and his standing relative to the necessary competencies for the position. The Board Chair should meet with the CEO to discuss the results of the evaluation.

Recommendation:

It is recommended that:

(19) The Board should set annual performance expectations and objectives for the CEO that incorporate the objectives for the organization.

3.4 Management Structures & Processes

Management is responsible for the effective and efficient operation of the organization in accordance with the direction set by the Board.

It is generally accepted in the health care industry that management is "responsible for the effective and efficient operation of the organization in accordance with the direction set by the Board".[25] Management of a health region is expected to fulfill its responsibility by:

- Providing leadership to the health services community
- Developing and implementing strategies for achieving the region's objectives
- Creating organizational structures and processes
- Directing and overseeing the delivery of health services
- Improving efficiency of health services
- Improving effectiveness and quality of health services and care
- Recruiting and developing staff
- Reporting to the Board on the effectiveness of the services operated by the region

The organizational health and effectiveness of a health services organization is dependent on the successful execution of these responsibilities. Generally, the management of WHCC Board has been and continues to be effective in most of its areas of responsibility. Its major failing has been its inability implement strategies to improve efficiency, reduce costs and improve the quality of care that address the full magnitude of the corporation's fiscal challenge.

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[25] From "Into the 21st Century: Ontario's Public Hospitals, Report of the Steering Committee, Public Hospitals Act Review, Ontario Ministry of Health, Toronto, Ontario, February, 1992.

3.4.1 Senior Management Organization

Senior management at WHCC is challenged by the need to operate a wide variety ofservices on sites throughout the region while integrating programs and services across modalities of care and sites.

Senior management at WHCC is challenged by the need to operate a wide variety of services on sites throughout the region while integrating programs and services across modalities of care and sites. In 2001 the region reorganized it management functions with the intent establish consistent processes and practices across the region. WHCC has chosen a modified matrix approach to the management of sites and services. This is a reasonable and potentially effective approach to addressing a significant management challenge. However, the assignment of responsibilities among managers, may have over-weighted the need for consistency to the detriment of local leadership, oversight and cost management.

The most significant issue appears to be related to difficulties in implementing the roles of regional directors and site administration:

- difficulty with lines of communication,
- delays in decision-making,
- difficulty accessing regional directors,
- the number of directors a site administrator needs to contact with information and/or to get a decision,
- the challenges of geography for regional directors who have direct line responsibility for staff at remote sites.

There is an expectation that Directors of Nursing will manage all aspects of patient/resident care within a Health Centre, however, they have no authority to manage staff other than nursing.

At the Health Centres, there are Directors of Nursing reporting to a Vice President. The Directors of Nursing have responsibility for direct supervision of nursing staff within the centre and site administration on a day-to-day basis of all other staff on the site. There is an expectation that within their role these individuals will manage all aspects of patient/resident care within the facility. However, the Directors of Nursing have no authority to manage staff other than nursing and have significant frustrations addressing problems of communication among disciplines and between professional and support staff. The title of these individuals does not reflect the role they have in coordinating and directing the activities associated with patient/resident care.

There also may be an opportunity to manage the budget for the sites more effectively if a different administrative model were in place.

In a matrix structure there are always difficulties with reporting and accountability. It appears the model in WHCC is not functioning well. There is an opportunity to improve operational management and advance practice support for professionals by shifting the responsibility for all staff to the site administrator with regional directors filling a consultative, professional practice support role.

Also, as is discussed later in this report, there is a need to create a separate position of Chief Nursing Officer within the Senior Management Team.

The CEO has initiated a review of the management structure in the region and the preliminary findings indicate widespread and multi-faceted concerns. We feel that there is an opportunity and a need to further refine the management structure of the corporation.

Recommendation:

It is recommended that:

(20) The CEO should develop a refined model for organizing and managing the services delivered by the corporation.

3.4.2 Operational Planning & Budgeting

Operational planning and budgeting are the annual management processes through which a health services organization implements its long-range plans and fulfills its mission.

Operational planning and budgeting are the annual management processes through which a health care organization implements its long-range plans and fulfills its mission. Typically these processes will include setting:

- Annual objectives for the organization
- Plans for the development, enhancement, maintenance, contraction or elimination of programs and/or services
- Performance expectations related to the
  - volume,
  - productivity,
  - cost and
  - quality

of services provided by each program and by each therapeutic, diagnostic, support and administrative service department.

- Targeted expenditure levels for each element of the program
- Estimates of revenues

A health care organization needs the operating plan and related budget to describe and quantify its annual objectives and its planned program, service and fiscal initiatives. The plan and budget should be reviewed and approved by the Board, and thus is one of the most effective vehicles for ensuring accountability of health care organization management and staff to the Board, and to the health care organization corporation and the communities served by the health care organization.

WHCC has developed a budgeting process that substantially meets these criteria for effective planning and budgeting. The minimal process and content for operational planning and budgeting for health service regions in Newfoundland and Labrador has been codified through regulations articulated by the Department of Health and Community Services. WHCC has developed operational planning and budgeting processes that incorporate the regulated processes.

However the operational planning and budgeting process at WHCC focuses first on prior year's staffing and costs and responds to needs to incrementally add staff and seeks opportunities to incrementally reduce staffing and costs. Ideally, the process would focus first on plans for operations, and then translate these plans into the budget for the year. The focus should be operations, not costs.

Annual Objectives

Annual objectives should start the annual operational planning and budgeting process and should provide the framework for setting planning parameters and performance targets. WHCC does not set formal annual objectives for the organization.

To the extent that the Board considers annual objectives, they relate more to performance characteristics rather than providing specific performance and achievement targets.

For maximum effect the region's operating plan, the budget and the evaluation of the CEO should be based on the same sets of organizational objectives, targets and performance measures. WHCC would benefit from a formal process for setting annual objectives and from having these three processes brought into alignment.

Recommendation:

It is recommended that:

(21) The Chair of the Board should direct management to establish a process for setting annual objectives for the health care organization.

Performance Expectations

As stated previously the operational planning and budgeting process should start with an articulation of performance expectations related to the volume, productivity, cost and quality of services should be provided to each site and therapeutic, diagnostic, support and administrative service department. We feel that an effective operational planning and budgeting process should be based on:

- Estimates of patient volume
- Targets for Clinical Efficiency
  - % Ambulatory
  - ALOS
- Targets for Content of Care
  - Departmental Workload per Separation/Ambulatory Procedure/Clinic Visit or other appropriate activity measure
- Targets for Operating Efficiency
  - Departmental Productivity
  - Unit Cost Estimates for Labour
    - targeted worked hours %
    - targeted benefit hours %
- Targets for Material and Supplies Productivity

The operational planning and budgeting process established by WHCC does not explicitly relate costs to patient volume or workload. Nor does it explicitly consider potential changes to the content of care. It does not incorporate productivity targets, or external benchmarks for performance. And there is little if any explicit discussion regarding expectations regarding quality of care.

Communication of plans and budgets tended to focus on costs almost to the exclusion of discussion of patient volumes workload, productivity and quality. Discourse regarding operating plans and budgets along with planning tools should be expanded to include specification of expectations regarding patient volume, content of care, workload and quality.

Recommendation:

It is recommended that:

(22) The CEO and the CFO should modify the operational planning and budgeting process to more formally and explicitly include consideration of patient volume, content of care, departmental workload and productivity targets.

3.4.3 Controlling Expenditures

To be effective in the execution of its responsibilities, management needs to be able to influence and ultimately manage all aspects of the clinical and non-clinical activities of a region.

The primary focus of management of a health service organization is providing for and ensuring the effective and efficient provision of patient care and community services. Controlling expenditures suggests that management needs to set in place processes for managing efficiency. These processes should include:

- Cost Management-Controlling the cost of each unit of labour and material used by each department of the in providing its services or producing its products.
- Productivity Management-Measuring, monitoring and controlling the number of units of labour and materials employed in producing departmental services.
- Utilization Management-Measuring, monitoring and controlling the resources used in each episode of patient care (including length of stay in health care organization).
- Utilization Management-Ensuring the appropriateness of each episode of patient care.
- Production Management-Measuring, monitoring and controlling the number of episodes of patient care.

Management of a health region uses these processes to manage the overall content and cost of operations. To be effective in the execution of its responsibilities, management needs to be able to influence and ultimately manage all aspects of the clinical and non-clinical activities of a health region.

Through its management structure and management processes, the management of WHCC has and is establishing structures and processes that will allow it to manage costs of the corporation. However, best practice would provide for more focused and more aggressive control of costs.

New Quarterly Review Processes reinforces accountability and provides a forum for identifying, discussing and planning for resolution of operational issues.

Of particular note is a quarterly review process being established by many health care organizations and health regions that focuses on financial performance, utilization, quality, and goals and objectives. These reviews reinforce accountability and provide a forum for identifying and discussing operational issues, and facilitating communication around key results areas.

Often using an 'accountability framework' as an organization-wide approach to assigning accountability and monitoring performance. The framework is the basis for conducting quarterly reviews incorporating:

- goals,
- objectives,
- action plans,
- indicators,
- monitoring and evaluation of performance, and
- communication

Each Vice President[26] would be responsible for a formal quarterly review of each component of the portfolio. These Quarterly Accountability Reviews measure and monitor:

- Progress toward operating plan objectives
- Patient volume indicators
- Efficiency indicators
- Quality indicators
- Progress toward corporate goals
- Financial performance
- Variances from Plans
  - volume variances,
  - productivity variances or
  - cost variances
  - quality variances

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[26] And the Corporate Director Clinical Decision Support

External benchmarks/targets have been used to support these reviews including CIHI/Hay Benchmarking Study, CCHSA Accreditation Reports, OHA Report Card, Johnson & Johnson Operating Room Benchmarks, CIHI Databases, etc.

These reviews form the basis for Quarterly Reports to the Board on selected indicators related to the health care organization's corporate goals.

The most important aspect of variance analysis is not the determination of the cause of the variance, but rather the determination whether it is a controllable variance.

Variance analysis is critical to the success of the Quarterly Review Process. In refining its approach to variance analysis, it will be important for the region to remember that the most important aspect of variance analysis is not the determination of the cause of the variance, but rather the determination whether it is a controllable variance. If the variance is controllable then corrective action should be initiated; if it is an uncontrollable variance, then replanning and rebudgeting should be considered to reflect the uncontrollable/unplanned event. Corrective actions should be taken in response to significant departmental variances. When these actions will impact on departments outside the portfolio, the proposed plan of action should be reviewed with Senior Management prior to implementation. Corrective actions with significant implications for the region and/or rebudgeting with significant implications for year-end results should be reviewed with the Board.

Recommendation:

It is recommended that:

(23) **The CEO, CFO and Corporate Director Clinical Decision Support should introduce a Quarterly Review Process to provide for better performance management and expenditure control.**

3.4.4 *Management Reporting*

Management information should focus on the "critical success factors" of an organization.

There must be a balance in management reporting. Too little information and too much information should both be avoided. Management information should focus on the "critical success factors" of an organization. For any organization, the critical success factors are the limited number of areas in which satisfactory results must be achieved in order to ensure the successful performance of the organization. These are the few key areas where "things must go right" for the organization to flourish. If results in these few significant areas are good, the organization will be successful. If results in these few areas are not adequate, the organization's overall performance for this period will be less than desired. The critical factors are areas of activity that should receive constant, careful attention from management. The current status of performance in each area should be continuously measured and made available to the appropriate managers.

The critical volume, productivity, cost, revenue and overall performance targets specified in an operational plan/budget should provide the foundation for effective management reporting.

The critical volume, productivity, cost, revenue and overall performance targets specified in an operational plan/budget should provide the foundation for effective management reporting. Management reports should provide managers with an indication of departmental performance in relation to operating targets and budgets for:

1. Utilization (e.g. Laboratory Tests per Separation)
2. Volume (Laboratory Tests)
3. Workload (Laboratory Workload Units)
4. Productivity (workload units per variable worked hour – per UPP worked hour)
5. Variable/UPP worked hours
    - with separate reporting of overtime and call-back hours
6. Overhead worked hours (Management and Operational Support hours)
7. Benefit hours
    - with separate reporting of sick time
8. Total paid hours
9. Total Labour Costs
10. Labour cost per paid hour
11. Total Supplies Costs
12. Total Operating Costs
13. Revenues
14. Quality of service

Then, throughout the year, an effective management reporting system will concentrate on:

- Comparing actual results to targets

- Providing this information in a timely and accurate manner to support operating decisions

so that managers are able to understand and explain significant variances and develop plans for corrective actions to achieve the budgeted levels of performance. (Alternatively, if the causes of variance are outside the control of the health care organization, consideration might be given to formally changing the performance targets.)

Reporting for Departmental Managers should be enhanced.

WHCC currently provides senior management and functional centre managers with Current Period and Year-to-Date Reporting of Budget, Actual and Variance for:

- Hours
- Worked Hours
- Non-Worked Hours
- Total Paid Hours
- Salary Costs
- Benefit Costs
- Other Expenses
- Recoveries
- Net Expenses

Managers are also provided with a listing of current period transactions.

The level of detail provided by these reports is most useful for

- Monitoring financial performance in relation to plan, and
- Documenting individual expenditure items within categories of spending.

Other than financial performance, the reports do not provide an easily usable summary information on variances from other critical operating targets.

Other than financial performance, the reports do not provide an easily usable summary information on variances from other critical operating targets. They do not identify the critical variances requiring investigation and corrective action. Departments do not appear to receive regular reporting or analysis of budgeted and actual workload or productivity. There is no indication of the sources of workload by program.

The level of detail currently being provided will help department managers to understand and explain the expenditure items that may have led to variances from targets. But they are difficult to use in identifying the causes of these variances. As a result, reporting to front-line managers is not as effective as it might be in supporting the management of departmental activity or controlling costs.

The corporation should work to provide each department with higher level summaries of departmental performance in relation to the critical operating and budget targets listed above. These can then be the basis for more effective variance analysis within the organization and discussion of causes of variances from plan related to one or more of patient volume, patient mix, departmental workload, productivity, and unit costs.

Recommendations:

It is recommended that:

(24) **The CFO and the Corporate Director Decision Support should extend management reporting to include measures that will better support identification and explanation of variance from plans.**

(25) **The CFO should ensure that all analysis of variance includes consideration of corrective action and/or the implications of the variance for year-end departmental, program and corporate results.**

3.4.5 Absenteeism Control

It is recognized that the WHCC is but one participant in the provincial bargaining process and is therefore unable, on its own, to negotiate changes to the provincial agreements. There are, however, three areas where leadership is required in advancing change that could result in significant cost savings for the organization and other health regions in the province.

Sick time provisions

The collective agreement provisions that provide for the accumulation of a "bank" of sick days are contributing to a culture of entitlement to days off as opposed to the intended purpose of providing income protection for employees experiencing legitimate illness. And yet, the agreement does not provide any income protection for employees who experience a non-work related long-term illness or disability. Additionally, the voluntary nature of employee participation in early return to work programs is not in either the employer's or the employee's interest.

Personal Paid Leave

The collective agreement also provides for personal paid leave in addition to paid leave for vacation, holidays and illness. We understand that employees are taking on average 2 of the 3 days of paid personal leave available to them subject to the qualifying criteria. Paid personal leave does not exist in most other jurisdictions. The high rate of utilization of this entitlement is further exacerbating the health care organization's high replacement costs.

Overtime payments to nurses for providing report

Over time for nurses is calculated in 30-minute intervals at 1.5 times their rate of pay. Nurses working beyond their daily hours of work are therefore entitled to a minimum payment for 45 minutes, regardless of the actual time worked. Nurses have a professional responsibility for communicating the status of their patients to their peers at the change of shift. The fulfillment of this professional responsibility should not result in an automatic payment of 45 minutes. An overtime grace period not exceeding 15 minutes at shift exchange should be considered for the purpose of providing report and fulfilling this professional responsibility of nurses working at WHCC.

The current provisions of the collective agreement both inhibit the ability of employer to legitimately manage employee absence and do not meet the income protection needs of employees. It will be important for the Board and for the Province as a whole for the VP Human Resources to continue advocating, independently and through the provincial bargaining process, for changes to the collective agreement provisions governing over time for nurses and sick leave and personal paid leave provisions for all union employees.

Attendance Management

There is significant opportunity and need to reduce the amount employee absence due to illness and/or accident at WHCC. This is the element of benefit costs most immediately affected by management. At the same time there are potentially significant differences in the rules that determine qualification for, and payment of paid sick time benefits among health care organizations across Canada. To help to put regional differences in perspective along with the performance of the region, we compared the 2002/03 sick time usage of WHCC both to the performance of the Newfoundland and Labrador peers, and to the performance of peers from elsewhere in the country.

Exhibit 3.1 shows WHCC Sick time usage compared to Newfoundland & Labrador peers. The comparison shows sick time hours as a percentage of worked hours for the four major reporting groups for hospital services. All areas showed potential, adding up to 70,807 hours if their sick time usage could be reduced to the peer 25th percentile usage level. Even reducing sick time usage to the Median would achieve a reduction of 35,995 hours.

Exhibit 3.1
WHCC Sick Time Hours as a Percentage of Worked Hours (2002/03)

Area	**WHCC**	Newfoundland & Labrador Peers				Potential @ 25th %il
		Low	25th	MEDIAN	MEAN	Hours
Administration & Support	**8.2%**	2.6%	6.6%	7.9%	7.7%	17,193
Inpatient Nursing	**9.2%**	4.9%	6.7%	7.4%	7.5%	34,041
Ambulatory Care	**8.3%**	0.0%	5.8%	6.4%	5.8%	4,770
Diagnostic & Therapeutic	**6.6%**	0.4%	3.0%	5.1%	4.4%	14,803
			Potential @ 25th %ile			70,807

Exhibit 3.2 shows WHCC Sick time usage compared to peers located elsewhere in Canada. The comparison shows sick time hours as a percentage of worked hours for the four major reporting groups for hospital services. Sick time usage rates appear to be significantly lower in the other provinces. All areas were worse than the 25th percentile of these peers, for a total potential saving of 145,501 hours if the 25th percentile could be achieved.

Exhibit 3.2
WHCC Sick Time Hours as a Percentage of Worked Hours (2002/03)

Area	**WHCC**	NON N & L PEERS				Potential @ 25th %ile
		Low	25th	MEDIAN	MEAN	Hours
Administration & Support	**8.2%**	3.8%	4.6%	5.3%	5.5%	40,056
Inpatient Nursing	**9.2%**	1.9%	3.6%	5.2%	5.2%	74,715
Ambulatory Care	**8.3%**	1.0%	2.7%	3.9%	4.2%	10,544
Diagnostic & Therapeutic	**6.6%**	0.4%	1.7%	2.8%	2.8%	20,185
			Potential @ 25th %ile			145,501

Senior Management and the Board have identified this significant opportunity to improve the organization's employee absence experience, resulting from illness and/or accident. An Attendance Management program has been developed and implemented incorporating the following key elements:

- A focus on health identifying both opportunities for intervention to improve attendance and providing for recognition of good attendance.
- The development and implementation of comprehensive policies and procedures to guide the organization supported by a comprehensive communications plan.
- A comprehensive training initiative including community physicians to provide for a uniform application of the program and understanding of the underlying philosophy.
- An intensive review of employee attendance in consultation with managers resulting in interventions within excess of 250 employees since January of this year.
- Implementation of an early return to work program involving the dedicated resources of three Occupational Therapists to facilitate the early return to work of employees off due to work related illness/accident.

Management is to be commended for these initiatives based upon the following proven formula for success:

Awareness + Intervention = Reduction in employee absence and Cost Savings.

The Vice President Human Resources has expressed his pride in the efforts of the team to date and indicated that the early results are promising. The results of that effort first started to show up in Sept/Oct of 2003. As a result, the organization has reduced sick time hours by 5.3% (13,897 hours) in 2003/04 and has achieved annual savings already of about $600,000.

There are additional opportunities that can contribute to the success of their efforts. Our comments and recommendations are as follows:

Attendance Management Data Collection and Analysis

Effective management of human resources, especially attendance management requires information systems support. The Corporation's Meditech I.T. platform is functional, reliable and the platform of choice for a large number of Canadian hospitals. The financial and payroll programs however are not user friendly when it comes to producing information for Human Resources management. As a result many Meditech hospitals are acquiring HRIS software complementary to Meditech to provide management with the information needed to effectively manage their Human Resources including attendance. The Vice President, Human Resources should take the necessary steps to acquire HRIS software to support the human resources management at WHCC.

Recommendation:

It is recommended that:

(26) **The Vice President, Human Resources should acquire HRIS software to support human resources management at WHCC.**

Employee Health and Wellness

Employees who become ill while on the job and require attention are currently sent to clinics and/or the emergency department. As a result opportunities for early intervention and return to work as early as the same day are being missed. Nurses currently expected to perform occupational health functions are in practice infection control nurses whose first priority are infection control functions.

Employee wellness programs are an important component for improving employee health and attendance and are currently not part of the equation.

The success of the early return to work program for employees off due to work related illness/accident can and should be replicated for early return to work of employees off due to non-work related illness/accident. There is an equal and/or greater opportunity to improve attendance and reduce costs for this group of employees. The Vice President Human Resources should develop a proposal to acquire occupational health resources dedicated to early return to work for employees off due to non work related illness/accident, employee health triage for employees who become ill while at work and employee wellness program planning, for the consideration of senior management.

Recommendation:

It is recommended that:

(27) **The Vice President Human Resources should provide for occupational health resources for employee health triage for employees who become ill while at work, employee wellness program planning and for early return to work for employees off due to non-work related illness/accident.**

A final point to be addressed relates to the collection of data by the provincial association for the purpose of comparing absenteeism experience due to illness/accident both work and non-work related. A standard reporting format has been developed in other provinces and a similar approach should be taken in this province to provide for accurate and meaningful comparisons between organizations. Notwithstanding this point, the Human Resources leadership team has acknowledged the opportunity for their organization and is to be commended for their efforts to date. The team is encouraged to build upon their efforts and early success with sustained commitment to their Attendance Management program and our recommendations for enhancement.

WHCC should continue its focus on reducing absenteeism. It should set a medium term target of reducing absenteeism to the 1st quartile performance of other health and health and community services boards in Newfoundland and Labrador. This would provide a reduction of 70,000 sick time hours from the corporation's experience in 2002/03. WHCC's current efforts have provided a reduction of 13,000 hours in 2003/04. If it were to achieve a further reduction of 57,000 hours, it would realize a savings in operating costs of approximately $1,400,000. The derivation of this estimate is presented in the exhibit following.

Exhibit 3.3
Estimating Savings from Reducing Sick Time

Potential reduction in sick time at Nfld 1st quartile	70,000 hours
Sick time reduction realized in 2003/04	13,000 hours
Remaining potential reduction in sick time	57,000 hours
% sick time replaced by WHCC	74%
Reduced sick time hours subject to replacement	42,180 hours
Average salary & benefit cost per worked hour	$33.81
Potential additional savings from reducing sick time	$1,426,106

3.5 Medical Staff Involvement in Governance and Management

The review of the Medical Staff involvement in governance and management of WHCC has included the following:

- One-to-one interviews with the CEO and Medical Staff Leaders,
- Tours of each of the Health care organizations and Health Centres, visits to a select number of primary care clinics,
- Review of documentation including minutes of the RMAC, Medical Staff Bylaws, Physician Manpower Plan, previous External Reports and other documents provided by staff and physicians.

3.5.1 Organizational Climate

Physician Leaders are generally frustrated with the apparent lack of progress on needed changes in the organization.

Physician Leaders are generally frustrated with the apparent lack of progress and follow through on corporate changes that need to be made such as those identified by the Performance Improvement Teams (PIT). They are disillusioned about the positioning of the Region in the province with respect to acquisition of capital equipment, renovation and construction of physical facilities and implementation of basic systems such as modern dictation, PACS and Meditech.

Many medical leaders indicated that corporate directions and policy are not being enforced.

Leaders described the Medical Staff Organization as "powerless" and "lacking teeth" to make changes to physician behavior regarding issues of inappropriate resource utilization in particular but also in regard to issues relating to quality of patient care. In fact many medical leaders indicated that no authority within the Regional Organization, including the senior management and the Board seemed to use their "executive power" to appropriately enforce corporate directions and policy with the Medical Staff.

Medical Staff should use its influence to improve patient safety, quality of care and utilization management.

On the other hand, members of the Medical Staff including its Leadership have indeed exerted their collective influence from time to time within the Corporation to oppose and modify initiatives of management and the Board. If such influence exists, the medical staff has a responsibility to use it constructively. Ideally, if such influence exists, the Medical Staff has a responsibility to, and should use this influence to focus on improving patient safety, quality of care and utilization management.

Leaders expressed the opinion that the Western Health Care Region has a negative reputation arising from strained relationships, fiscal constraints and lack of reasonable physical facilities and equipment and that these issues have presented major obstacles in the recruitment of local medical graduates from Memorial University and Dalhousie University.

The current attitudes and culture of the Medical Staff is a significant liability to the Western Health Care Corporation.

The current attitudes and culture of the Medical Staff is a significant liability to the Western Health Care Corporation and a serious effort must be made to change its tone and direction. The Medical Staff leadership should seriously reflect on the role it has played in the last five years in de-stabilizing the progress of the Western Health Care Corporation. The Medical Staff have a responsibility to use their influence wisely and responsibly and the Leadership should take the initiative to reflect on their behavior, lead a change in attitude and support the Corporation with the organizational, and operational changes that need to be made.

3.5.2 Physician Leadership and Organizational Structure

There is no Regional Chief of Staff.

The medical staff structure consists of a combination of regional and local governance. There is a Chair of the Regional Medical Advisory Committee (RMAC) who is appointed by the Board for a term of three years upon recommendation from the RMAC. The current RMAC Chair has held this role for four months. There is no Regional Chief of Staff and the Regional RMAC Chair is not officially designated as such.

There are six local Chiefs of Staff.

There are six local Chiefs of Staff appointed by the Board for a five-year term upon the recommendation of a local Medical Advisory Committee (LMAC) to the RMAC and from the RMAC to the Board. In general terms the Chiefs of Staff are accountable directly to the Board through the RMAC for the medical care provided at each site. More specifically the local Chief of Staff is responsible for:

- Quality initiatives with support from the administrative organization, and in consultation and collaboration with Regional Chiefs of Discipline and the Medical Director,
- Resource Management in consultation and collaboration with the Regional Chief of Discipline,
- Planning for medical manpower in collaboration with the Medical Director and the Regional Chief of Discipline,
- Communication between the LMAC, local medical staff and the Board.

The accountability relationships for the local Chiefs of Staff are complex and confusing.

The accountability relationships for the local Chiefs of Staff are complex and confusing. They have accountability to the Board through the RMAC but yet they have no direct accountabilities to the RMAC Chair. They have accountabilities to both the Regional Chiefs of Discipline and the VP-Medical Services but the issues for which they are accountable to each of these authorities are not entirely clear.

Ordinarily the local Chiefs of Staff and the Regional Discipline Chiefs would be accountable to a Regional Chief of Staff who would chair the RMAC. The local Chiefs of Staff and the Regional Discipline Chiefs would be responsible for the quality of physician practice, initial credentialling and appointment, as well as annual review and reappointment and midterm action and other initiatives as outlined in the Bylaws.

The Regional Chiefs of Discipline are accountable to the RMAC and have a variety of responsibilities including the efficient use of resources. The responsibility for resource use is executed in collaboration with the VP-Medical Services, local Chiefs of Staff and the RMAC and its committees. However the VP-Medical Services does not currently play an active role in assessing the resource management structures and processes across the Region and the effectiveness of utilization management efforts.

The Medical Staff Leaders are not effective in relation to the management of both quality and utilization.

The Medical Staff Leaders are not executing on their responsibilities in an effective manner with regard to both quality and utilization initiatives. There is no obvious evaluation of their activities and little effort is being made to initiate a comprehensive and effective approach to measuring, monitoring or improving medical quality or utilization. A number of factors are contributing to their performance gap. Some of the factors include lack of knowledge in some instances, inadequate data in other cases, a reluctance to confront colleagues about poor performance for fear of loosing patient referrals, inadequate support by the VP Medical Services.

In a Region as geographically disbursed and fiscally challenged as the Western Health Care Corporation, the VP-Medical Services must play an active role as the Senior Medical Administrative Leader in review and management of the Corporation's resources. The VP-Medical Services must become actively involved in the regional utilization review efforts. He must actively support the Chair of the Regional Utilization Review Committee until such time as an appropriate URM Program is established and working well within the Region.

The RMAC Chair and the VP Medical Services must take the leadership in collaboration with the RMAC in setting expectations for physician performance and addressing gaps so that local Chiefs of Staff and Regional Chiefs of Disciplines are supported in their efforts.

Since local Chiefs of Staff and Regional Chiefs of Discipline are often reluctant to deal with colleagues in an appropriate manner for breaches of quality standards or inappropriate use of resource, the Corporation must find a mechanism support the Chiefs to ensure that quality and utilization efforts are meaningful and effective. The RMAC Chair and the VP Medical Services must take the leadership in collaboration with the RMAC as a whole in setting expectations for physician performance and addressing gaps so that local Chiefs of Staff and Regional Chiefs of Disciplines are supported in their efforts.

Local Chiefs of Staff and Regional Chiefs of Discipline are generally selected through a nomination process limited to the local site or the specific discipline. While this may not be unusual in community health care organization settings, the process does not necessarily provide the Board and Senior Administration of the Organization with an appropriate opportunity to input into the selection of individuals.

The appointment of local Chiefs of Staff and Regional Chiefs of Discipline who are willing and able to carry out their responsibilities is a very important consideration for the Board and Senior Administration of the Corporation. The Board and Senior Management must become more actively involved in ensuring that the right leaders are in place, expectations are set and support is given. A more formal recruitment and selection process for the Regional Discipline Chiefs and local Chiefs of Staff with active participation from management should be developed jointly by the Regional Chief of Staff and the Vice President Medical Services.

A Regional Chief of Staff role should be created and the Regional Chief of Staff should chair the RMAC.

Without clearly articulated lines of accountability there are no means to ensure that appropriate goals and objectives are set for Medical Leaders, performance evaluation is effectively conducted and issues are resolved in an expeditious manner. A Regional Chief of Staff role should be created and the Regional Chief of Staff should chair the RMAC. The local Chiefs of Staff and the Regional Chiefs of Disciplines should be responsible to the Regional Chief of Staff for all aspects of the quality of medical care and professional practice.

The Medical Staff Bylaws were last reviewed and revised in January 1999. Since that time, some changes have occurred that would warrant Bylaw amendments. As an example, the Regional Utilization Review Committee (RRUC) which was a Committee of the Board has now been designated as a standing committee of the RMAC. The senior management structure that is noted in the Bylaws has also changed. The Medical Staff Bylaws should be revised to reflect the current situation within the Corporation.

Recommendations:

It is recommended that:

(28) **The Board should modify its medical staff bylaws to create the role of Regional Chief of Staff.**

(29) **The Board should modify its medical staff bylaws so that the Regional Chief of Staff serves as Chair of the RMAC.**

(30) The Board should modify its medical staff bylaws to clearly articulate that Local Chiefs of Staff and the Regional Chiefs of Disciplines are responsible to the Regional Chief of Staff for all aspects of the quality of medical care and professional practice.

(31) The Board should review, revise and update its Medical Staff Bylaws.

(32) The Regional Chief of Staff and the Vice President Medical Services should develop and implement a more formal recruitment and selection process for the Regional Discipline Chiefs and local Chiefs of Staff.

A number of attempts have been made over the years to engage physician leaders in educational programs to enhance administrative skills. Some programs have been cancelled because of inadequate registration and others have had poor attendance. Unless Medical Staff leaders have the education and tools to be successful in their roles, the Organization will not move forward in many aspects of its operations. The Corporation has not been successful in enticing its Medical Staff leaders to attend educational programs that are necessary for their success as leaders. An evaluation of the barriers to acceptance of or attendance at educational programs should be conducted and a strategy developed to make the educational sessions a priority for physician leaders.

Recommendation:

It is recommended that:

(33) The VP Medical Services should develop a strategy to make educational sessions related to leadership and management skills a priority for physician leaders.

The RMAC Chair is neither a member of the Board nor a member of the Senior Management Team.

The RMAC Chair is not a member of the Board and is likewise not a member of the Senior Management Team. The relationships between the Medical Staff and Senior Management are critical and so too are the relationships between the Medical Staff and the Board. The Bylaws do not provide for the RMAC Chair to be a member of the Board and this is not required under provincial legislation in Newfoundland as it is in some other provinces. However it is difficult to forge a strong partnership when key players are excluded from both executive and operational decision making. The CEO should seriously consider asking the Chair of RMAC, acting in the proposed role of Regional Chief of Staff, to become a full member of the Senior Management Team. Some of the other Medical Staff leaders might also be invited to join the team on a regular or periodic basis. Some mechanism should also be established to develop better relationships between the Board and the RMAC. In the longer term, once the relationships among the medical staff, the Board and management have been normalized, consideration might be given to making the Regional Chief of Staff and the RMAC accountable to the Board through the CEO.

Recommendation:

It is recommended that:

(34) The CEO should make the Chair of RMAC a member of the Senior Management Team.

3.5.3 *Committee Structure*

The RMAC and its various committees are not effectively executing the responsibilities ascribed to them under the Medical Staff Bylaws.

At the Regional level there is a Regional Medical Advisory Committee (RMAC) and a variety of regional standing committees. As outlined in the Bylaws dated January 1999, the committees include Credentials Committee, Local Medical Advisory Committees (LMAC), Continuing Medical Education Committee, Infection Control Committee, Pharmacy and Therapeutics Committee, Joint Conference Committee, Bylaws and Rules Committee. The RMAC now has a seventh standing committee, the Regional Resource Utilization Committee (RURM) that is not yet reflected in the Bylaws. This committee originally reported to the Board. In general terms, the RMAC and its various committees are not effectively executing on the responsibilities ascribed to them under the Medical Staff Bylaws.

3.5.3.1 The Regional Medical Advisory Committee

The RMAC is expected to meet at least 10 times per year. In 2003 the RMAC met a total of 11 times including every month of the year with the exception of August. In 2004 the RMAC has met each month except the month of January. The RMAC membership includes both appointed and elected members from the Medical Staff. The Bylaws indicate that the members of the RMAC include the Chiefs of Staff (6 sites), Chiefs of Disciplines (9), Area representatives (2), Regional President, CEO (ex officio), Executive Director - Health and Community Services (Western, ex officio), VP-Medical Services, VP Operations – Acute Care, VP Operations -- Long Term Care.

The senior management has been reorganized since these Bylaws were written. The senior management now consists of a VP Medical Services, VP Clinical Operations (Corner Brook), VP Clinical Operations (Rural) and VP Clinical Operations (BSG). The Bylaws need to be updated.

There are a number of physicians who are absent from meetings more often than acceptable (Minutes of December 2003 Page 7,) and concerns have been expressed about the attendance of the senior management (Minutes of December 2003, Page 5). However there was sufficient attendance at each meeting in 2003 and to date in 2004 to reach a quorum. A quorum consists of a simple majority of members.

The ability of the RMAC to conduct its business is affected significantly when key members are not present. The time and date of these meetings is known well in advance, allowing individuals ample time to organize clinical and personal schedules. Except for unexpected illness or emergency, attendance should be mandatory and the consequences of inappropriate absences should be articulated.

Attendance at meetings of the RMAC is essential if the committee is going to be effective.

Attendance at meetings of the RMAC is essential if the committee is going to be effective. The RMAC Chair should indicate to all members that their attendance is not optional and that absences from meetings are tolerable only under very limited circumstances. The committee should agree on its recourse in dealing with unacceptable absenteeism.

Recommendation:

It is recommended that:

(35) The RMAC should develop and implement policies and procedures for dealing with unacceptable absenteeism of members of the RMAC.

The responsibilities of the RMAC are outlined in the Bylaws on page 31. In general terms the RMAC is responsible to the Board for all matters relating to patient and resident care, professional practice, quality of care, utilization of resources, adoption of policies and rules, development of a physician resource plan and facilitation of research.

The RMAC is not dealing effectively with many of its responsibilities.

In general terms the RMAC is not dealing effectively with many of its responsibilities. This lapse will be outlined in more detail under the discussion of the RMAC standing committees in the next section. The RMAC has not received reports from many of its standing committees since January

2003. When Committee Reports are brought forward there are no questions or discussion. Sub-committees report at the discretion of the Committee Chair (RMAC Minutes May 2003).

The RMAC is not devoting sufficient attention to substantive issues of professional practice, quality of care and utilization of resources.

The minutes of RMAC meetings do not indicate substantive discussions about the review of quality of care or resource utilization and some of the discussions regarding physician privileges were left with inadequate resolutions. This latter point is addressed further under the Credentials Committee section. The agenda is heavy with many standard reporting items that may be best brought forward for information. The committee is not devoting sufficient attention and time on its agenda to deal with the substantive issues of professional practice, quality of care and utilization of resources.

The new RMAC Chair should critically review the agenda and functioning of the RMAC and realign the discussions so that the work of the committee is more meaningful and productive and its responsibilities are achieved.

RMAC decision-making process appears slow and cumbersome with matters remainining unresolved for extended periods of time.

The RMAC decision-making process appears slow and cumbersome with unresolved matters coming forward time and again each month. One example is the topic of "wound care" which was first evident on the agenda in January 2003 and continued on the agenda most months until March 2004 which is the latest set of minutes provided to the external team. Another example is the issue of escort assignment where discussion began in June 2003 and as of February 2004 the "Escort Task Force" had still not met and no follow-up was reported. A final example is the case of "magnesium sulfate" which was first introduced to the agenda in May 2003 and in February 2004 the topic was once again deferred because of absences of some committee members.

The RMAC Chair along with the VP Medical Services should develop a process to ensure that items on the RMAC agenda have been adequately researched and that information is available to support the committee's decision making. Action items should be clearly recorded and the most responsible person noted. A process should be developed to ensure that outstanding items are brought forward for resolution in a timely manner.

Recommendations:

It is recommended that:

(36) **The Chair of the RMAC should restructure the RMAC agenda to provide for more time for discussion related to critical decisions.**

(37) **The Chair of the RMAC and the VP Medical Services should ensure that items on the RMAC agenda have sufficient information to support decision making.**

(38) **The VP Medical Services should develop a process to ensure that outstanding items are brought forward for resolution in a timely manner.**

3.5.3.2 Local Medical Advisory Committees

The Bylaws indicate that the Local Medical Advisory Committees are composed of the local Chief of Staff, locally elected members of the Medical Staff, CEO (ex officio), VP-Medical Services or representative (ex officio), Chair RMAC (ex officio), Chiefs of Disciplines (ex officio), Area Manager (ex officio) and others as may be deemed appropriate by the local MAC. The Bylaws do not specify the Chair of these Committees.

The Committee's responsibilities involve the appointment of subcommittees as required to supervise, review and analyze the clinical work at the site, ensure the continuing performance of clinical appraisal activity and maintain a desirable level of quality of professional service and continuing education. Additionally the local MAC must keep the Medical Staff informed of accreditation and make recommendations to the RMAC pertaining to the Clinical Organization, medical equipment and other relevant medico-administrative matters.

It is entirely reasonable that the Medical Staff from each of the Corporation's sites should have a forum to provide input to the RMAC regarding the development of relevant policy governing the Medical Staff across the Corporation and to have policy interpreted so that it is consistently applied across each site. The role of the MAC in a Corporation is indeed to create policy and rules for management of the affairs of the Medical Staff within the parameters set by the Board under the Bylaws and to describe the Medical staff Structure and Responsibilities of its Officers and Leaders.

There should be only one governing authority of the Medical Staff within the Region, and that authority should be delegated from the Board to the RMAC.

However there can be only one Governing Authority of the Medical Staff within the Region. That Authority finalizes recommendations to the Board regarding the Medical Staff Bylaws, develops the conditions for appointment of the Medical Staff, recommends the appointment and re-appointment of physicians, Discipline Chiefs and Chiefs of Staff to the Board, sets the standards for professional practice, supervises the overall quality of care and use of the Corporation's resources by the Medical Staff and ensures that the Medical staff is appropriately structured.

The Western Health Care Corporation has established 7 Medical Advisory Committees.

The Western Health Care Corporation has, in effect, established 7 Medical Advisory Committees where one is the Regional Committee. In this model however there is opportunity for confusion and conflict about where the final authority rests. Only one Medical Advisory Committee should exist within the Corporation's structure. The Regional Medical Advisory Committee has sufficient representation from all sites and disciplines within the region to ensure that there is appropriate discussion of issues and full input from across the region is captured.

The six site-specific local Committees should function in an advisory capacity to the RMAC and act as a communication forum for physicians.

The six site-specific local Committees should function in an advisory capacity to the RMAC and act as a communication forum for physicians. Their nomenclature should be changed and terms of reference revisited so that there is no question about their role and responsibilities. The local committees can remain as sub-committees of the MAC and be assigned specific responsibilities including those related to quality of care and resource use. They can continue to provide a good forum for communication between the local physicians and the RMAC through the local Chief of Staff and area representatives.

Recommendation:

It is recommended that:

(39) The Board should eliminate all Local Medical Advisory Committees.

3.5.3.3 Credentials Committee

The Medical Staff Bylaws make provision for a Credentials Committee composed of the Chief of Discipline, Chief of Staff of the primary site and the VP-Medical Services or designate. The Committee's responsibility includes the investigation of credentials, assessment of qualifications, experience and medical competence of applicants to the medical staff and the recommendation to RMAC of initial appointment, category of appointment, granting of privileges, reappointment and change of category or privileges.

The process for investigating credentials, assigning privileges, appointment and reappointment is not appropriately controlled.

It is somewhat disturbing to note from the minutes of the RMAC that the members of the RMAC do not know of their responsibility under the Bylaws to constitute a Credentials Committee and that the process for investigating credentials, assigning privileges, appointment and reappointment is not appropriately controlled.

In point of fact, in the RMAC minutes of December 2003, a motion to create a Credentials Committee was defeated in a vote of 4 in favor and 5 against. The RMAC agreed that credentials continue to be handled as usual. Currently each Discipline and/or local Chief of Staff is managing the credentials process at the Discipline or site specific level and making representation directly to the RMAC for initial appointment, assignment of privileges, change in category and reappointment. This process is inappropriate, it is not well managed and it presents many current and potential problems for the Corporation.

It was further noted in the RMAC minutes of April 2003 that a suggestion was made to strike a Credentials Committee to develop a new process for reappointment and that such a subcommittee of RMAC would be “the best way to go”. The matter was referred to the Bylaws Committee for action but no action came forward in subsequent minutes.

The VP Medical Services and the RMAC Chair should move immediately to establish a Credentials Committee as provided for in the Bylaws.

The VP Medical Services and the RMAC Chair should move immediately to establish a Credentials Committee as provided for in the Bylaws. The Committee should coordinate and manage all credentialling and privileging requirements and appointments and re-appointments to the medical staff across the Region. It should ensure that credentials are verified, standards and policies are approved by the RMAC for the assignment of privileges and that the re-appointment process gives due consideration to the performance of physicians on a periodic basis.

In the minutes of March 2004 a draft policy and letter regarding requirements by general practitioners for ACLS and BCLS training was circulated to the meeting. It was noted that these items should be included in an orientation package. While the inclusion of these items in an orientation package may be important, it is essential that the education and skill requirements of all specialists and subspecialties practicing within the Corporation are clearly articulated and managed through a centralized Credentials Committee reporting to the RMAC.

Additionally when new physicians are recruited who require a period of evaluation or mentoring, the requirements should be clearly articulated, the mentor identified and a formal process of evaluation established through the Credentials Committee. In the minutes of June 2003, under the section "Amendment of Privileges" the RMAC did not adequately assure themselves of the skills of a particular physician regarding solo work in the ER. The physician in question was asked to read the ACLS manual and commit to upgrading of his skills but no verification process was established to ensure that the physician had carried through on his commitment. The RMAC further concluded that a "shadowing program" should be established for physicians who wish to work in the ER if they have not worked in an ER for the previous five years. However there was no assigned individual to carry this forward and no presentation on this item again in any of the subsequent RMAC meetings up to and including March 2004.

A process must be developed to address any outstanding issues regarding the professional performance or inappropriate behavior among the medical staff.

Finally, a process must be developed to address any outstanding issues regarding the professional performance or inappropriate behavior among the medical staff and the satisfactory resolution of these issues should be linked to the physician's ongoing privileges and potentially his/her ongoing relationship with the Corporation. In the minutes of May 2003, the RMAC reflected on whether it should conduct an audit to determine if conditions that were placed on a member of the medical staff four years earlier by an internal review committee were actually followed by the sanctioned physician.

Recommendations:

It is recommended that:

(40) The VP Medical Services and the RMAC Chair should move immediately to establish a Credentials Committee as provided for in the Bylaws.

(41) The RMAC Chair must ensure that a reliable and comprehensive process is established to ensure implementation of professional performance directives of the RMAC.

3.5.3.4 Pharmacy and Therapeutics Committee

The Pharmacy and Therapeutics Committee appears to be one of the only active sub-committees of the RMAC. The RMAC gets regular updates on drug utilization. However suggested changes in drug usage are presented for information and not for approval. Approval authority appears to reside within the Discipline. While it is obviously essential to consult with relevant Discipline Members, it is the prerogative of the RMAC to make final decisions on the business of the Pharmacy and Therapeutics Committee including drug substitution.

All matters relating to the business of the Pharmacy and Therapeutics Committee should be approved by the RMAC. The responsibilities of the RMAC regarding alterations to the formulary and substitution of drugs cannot be delegated to the Disciplines. Consultation with Disciplines is essential but such consultation is not a substitution for the responsibilities of the RMAC, the only Authority that can authorize changes to the formulary or policy regarding drug substitution.

Criteria for the use of new drugs must be developed and approved by the RMAC, not Senior Management.

Guidelines for use of new drugs must be developed proactively and communicated in a clear manner to the medical staff. This process should be an automatic part of the function of the Pharmacy and Therapeutics Committee but yet there is some question about whether the process is followed consistently. The RMAC minutes of October 2003 regarding the introduction of Xigris to the Drug Formulary documented a discussion indicating that the criteria for the use of Xigris were to be developed before presentation to the Senior Management. The criteria for use of new drugs must be developed and approved by the RMAC, not the Senior Management of the Corporation.

The Pharmacy and Therapeutics Committee must develop criteria and guidelines for the use of new drugs that are introduced to the formulary and the criteria and guidelines must be approved by the RMAC at the time that approval of the addition of the drug to the formulary is given.

The process by which proposals for the addition of new drugs to the Formulary are brought forward to the RMAC is unusual. The request is made by a member of the RMAC versus through the recommendation of the Pharmacy and Therapeutics Committee. The Chairman of the P&T Committee would ordinarily attend the RMAC meeting, present his report, facilitate discussion and address questions.

There is no evidence in the minuted RMAC discussions of a rigorous analysis of the financial impact of new drugs.

The Chair of the Pharmacy and Therapeutics Committee should present his/her report to the RMAC and deal directly with discussion and questions. The presentation should address the rationale behind the addition or substitution of a drug, the indications for use, restrictions on use and the financial impact. The financial impact should also be considered and approved by the Senior Management before the drug is introduced to the formulary.

Recommendations:

It is recommended that:

(42) **The RMAC Chair should ensure that the RMAC is the only entity that can authorize changes to the formulary or policies regarding drug substitution.**

(43) **The Pharmacy and Therapeutics Committee should develop criteria for the introduction of new drugs into the formulary.**

(44) **The Chair of the RMAC should ensure that the financial impact of a proposed new drug is approved by the Senior Management before the drug is approved by the RMAC for introduction into the formulary.**

3.5.3.5 Joint Conference Committee

The Joint Conference Committee is intended to provide a forum for open communication among the Medical Staff, Senior Management and the Board.

The Bylaws provide for the development of a Joint Conference Committee consisting of three members of the Medical Staff, three representatives from the Senior Management and three members of the Board. The Committee is intended to meet semi annually and provide a forum for open communication with the Medical Staff and discussion of matters of mutual interest.

Attendance of the medical leadership at Board meetings does not fulfill the intent of the Joint Conference Committee.

The Joint Conference Committee has not been active for the last three years and there is no other forum that would allow the open discussion contemplated by the Joint Conference Committee setting. The President and Vice President of the Medical Staff and Chair of the RMAC do attend meetings of the Board but the opportunity for dialogue at meetings of the Board is constrained by the nature of the meeting and the fact that the medical staff are only attendees at the meeting, not members of the committee. The attendance of the medical leadership at Board meetings does not fulfill the intent of the Joint Conference Committee.

There is a great deal of tension among the members of the Medical Staff in this Region and constructive dialogue is essential. The Board and Management may be well advised to consider options for opening the avenues for serious discussion whether through a Joint Conference Committee or another forum.

The Board and Management should revisit the Bylaws and make a decision about the usefulness of a Joint Conference Committee. If such a Committee is not developed, then the Bylaws should be amended in this regard. In any event, some forum for constructive and open dialogue among the Medical Staff, Board and Management will be essential to successfully dealing with the issues facing the Corporation.

Recommendation:

It is recommended that:

(45) The Chair of the Board should reactivate and establish a regular meeting schedule for the Joint Conference Committee.

3.5.3.6 Bylaws and Rules Committee

In the minutes of July 2003 the Bylaws Committee reported that it was "searching other parts of the province to see how they are doing things" Almost one year later there has been no report to the RMAC on the results of that search. Medical Staff Bylaws are a common document that can be found in every health care/hospital corporation in Canada. It should not take 12 months to find samples relevant to the Western Health Care Region.

On occasion, the Bylaws Committee is assigned an item for follow-up action by the RMAC. As an example, in the minutes of May 2003, the RMAC requested that the Bylaws Committee clarify the length of appointment of a Discipline Chief as well as the process for selection of Chiefs of Staff and Discipline Chiefs. A second example is noted in the minutes of October 2003 where a number of issues relating to Disciplines were discussed and it was noted that the Bylaws were silent in relation to Disciplines. The matter was referred to the Bylaws Committee for action. No follow up from the Bylaws Committee on either issue has been recorded in subsequent minutes.

The Bylaws Committee should review of the Medical Staff Bylaws and ensure that they reflect all changes in the Corporation since the Board last approved the Bylaws in 1999.

The Bylaws Committee should commence an immediate review of the Medical Staff Bylaws in their entirety. The Committee should ensure that revisions to the Bylaws reflect all changes that have been made in the Corporation since the Board last approved the Bylaws in 1999. The revisions should also address the outstanding issues from the RMAC and from this Report. The revised Bylaws should provide all the guidance that is required by the Medical Staff Organization to govern itself in a responsible and effective manner.

Recommendation:

It is recommended that:

(46) The Bylaws Committee should immediately review and recommend to the Board appropriate revisions the Medical Staff Bylaws.

3.5.3.7 Continuing Medical Education Committee

According to the Bylaws the Continuing Education Committee should be composed of the Regional Director of Education Services, representatives of the Medical Staff as appointed by the RMAC and the VP-Medical Services or delegate. The Committee should plan and develop CME programs for the Medical Staff based on needs assessment, maintain awareness of the availability of medical education programs, evaluate CME programs and work cooperatively with Staff Education to coordinate programs involving other health professionals.

In the RMAC minutes of May 2003, the RMAC addressed the question of whether the CME Committee should resume presentations to the RMAC bi-monthly or by invitation. The RMAC arrived at a consensus that the CME Committee could forward a monthly package to the RMAC for information purposes but would not attend the RMAC meeting on a regular basis.

There is little evidence that the CME Committee is given any priority, guidance or support by the RMAC.

There is little evidence in the minutes of the RMAC that the CME Committee is given any priority, guidance or support by the RMAC. In fact the Nursing Report to the RMAC addressed concerns on an ongoing basis about the inability to get physicians to enroll in a program to deal with concerns around wound care.

There are also a variety of educational requirements that physician leaders have throughout the Region to which the RMAC should give some consideration. It is evident that many physician leaders are unsure of their roles and responsibilities and the boundaries within which they should function. The CME Committee should be asked to design and deliver educational events for physician leaders. Some attempts in the past have not been successful. However this is long overdue and a concerted effort must be made again.

In the minutes of the RMAC of September 2003 and again in October 2003 and December 2003 members of the RMAC debated the role of the Discipline Chief. In particular in December it was recorded that "medical staff members who are taking on the role of Chiefs should be aware of the full responsibility associated with their role…"

The RMAC should work with the CME Committee to identify the continuing education needs of physicians and actively support the Committee in developing and implementing a strategy to ensure that CME is attended across the Corporation.

Recommendations:

It is recommended that:

(47) The RMAC should work with the CME Committee to develop and implement a strategy to ensure that CME is attended across the Corporation.

(48) The Chair of the RMAC and the VP Medical Services should work with the CME Committee to develop and deliver educational sessions for physician leaders.

3.5.3.8 Infection Control Committee

The Infection Control Committee is composed of representatives of the medical staff as appointed by the RMAC, Regional Infection Control Officer, representatives of site Infection Control Nursing (rotating), other representatives from nursing –acute and long term care, communicable disease nurse and the VP-Medical Services or delegate.

Its functions are outlined in the Bylaws and include the establishment of written standards for Infection Prevention and Control in patients and employees, development of a consistent record of recording and evaluating nosocomial infection rates and consultation on the employee health program.

It appears from the minutes of the RMAC dated May 2003, page 6 that the Infection Control Committee was instructed in May 2002 that its Chair would not attend RMAC unless invited to report. In the minutes of the RMAC from January 2003 up to and including March 2004, there was no report from the Infection Control Committee.

The RMAC has no formal manner in which to evaluate the work of the Infection Control Committee because it has neglected to hear from it in any relevant or active manner for over one year.

The RMAC has a responsibility to provide guidance and support to its sub-committees and to ensure that the work of the committees is meeting expectations. The RMAC has no formal manner in which to evaluate the work of the Infection Control Committee or most of its other committees because it has neglected to hear from them in any relevant or active manner. This needs to change. The RMAC must establish a means of receiving timely and relevant information from the Infection Control Committee as part of a full and comprehensive Quality Review Initiative.

Recommendation:

It is recommended that:

(49) **The RMAC Chair should establish a means of receiving timely and relevant information from the Infection Control Committee as part of a full and comprehensive Medical Quality Review Initiative.**

3.5.4 The RMAC and Utilization Management: The Regional Resource Utilization Committee

Primary responsibility for utilization management in WHCC is assigned to the Regional Resource Utilization Committee (RRUC). The Regional Resource Utilization Committee (RRUC) reports to the RMAC and advises the senior team, the Quality Council (a Board subcommittee) and the individual Performance Improvement Teams established for each clinical, diagnostic, therapeutic, and support service.

The committee is chaired by one of the Discipline Chiefs. Other physician members include the Regional MAC Chair, the Chief of Staff, the VP Medical Services, and the Regional Chiefs of Medicine, Emergency, Surgery, and Family Practice. The Regional Chiefs of Radiology and Laboratory, and the local Chiefs of Medicine, are added as required. Non-medical RRUC members include the WHCC CEO, the VP Clinical Operations Corner Brook, Director of Acute Care Nursing WMRH, Regional Director Health Records, the Corporate Director Clinical Decision Support, the Regional Utilization Coordinator, and the CEO of the HCSW.

The RRUC meets monthly for an hour (immediately preceding the regular meeting of the Regional MAC). A member of the medical staff chairs the RRUC and the terms of reference for the RRUC identify the following responsibilities for review of utilization information:

- Length of stay by CMG, service and physician
- Laboratory usage
- Radiology usage
- Concurrent review
- Occupancy rates
- Ambulatory Care activity
- Emergency Department activity
- Department-specific Wait Times
- Physician consultation wait times
- Resource Intensity Weights

The terms of reference for the RRUC describe a process whereby individual physician's lengths of stay will be monitored against CIHI expected lengths of stay (ELOS). If a physician's average length of stay is more than one day over or under the ELOS for more than three consecutive quarters, a case-by-case analysis will be done to establish potential causes for the variance (it is not clear who will conduct this review). The LOS performance will then be compared with concurrent review results and if there are potentially avoidable days that have been characterized as "influenced by the physician", the Regional Chief of Discipline will become involved.

While ALOS for many physicians is consistently more than 1 day in excess of the CIHI ELOS, it does not appear that alteration of privileges has been actively considered by RRUC or RMAC.

A prior version of the RRUC terms of reference specified that the ongoing review could result in the alteration of privileges. While average lengths of stay for many physicians are consistently more than 1 day in excess of the CIHI ELOS, it does not appear that alteration of privileges for these physicians has been actively considered.

In September 2000 the RRUC terms of reference were changed to instead rely on the Chiefs of Service for follow up on aberrant patterns of utilization. Length of stay data for individual physicians has not been routinely reported to the physicians (although this is just being restarted), but has been available for the Chiefs to review. The corporation is in the process of developing discipline specific performance profiles for the regional chiefs to review quarterly. Interviewees reported that Chiefs find it very difficult to challenge the utilization practices of their colleagues in the service, and feel that they are not sufficiently compensated to make up for the potential impact on their professional relationships of assuming the role of utilization enforcer.

Short meetings; lack of confidence in the LOS data; and a general lack of engagement of the medical staff in utilization management have acted as barriers to success of the RRUC.

Review of minutes from the RRUC for the past 3 years showed that there are regular discussions about data quality and the inadequacy of clinical documentation. There are seldom action items identified, and for those items identified as actionable, subsequent meeting minutes do not document follow up. At the March 21, 2001 RRUC meeting the minutes note that "the members noted that the committee needs to be more action oriented". This change does not appear to have happened. Interviewees suggested that the combination of the short meeting time (1 hour), the lack of confidence in the LOS data based on physician documentation, and the general lack of engagement of the medical staff in utilization management, have acted as barriers to success of the RRUC.

As a result, the Western Memorial Regional Hospital (WMRH) site has significant issues that have not been adequately addressed by the RMAC or its RRUC sub-committee. In particular our analysis of "Average Length of Stay" (ALOS) and "May Not Require Hospitalization" (MNRH) indicates that the Corporation does not perform well when compared with peer health care organizations. (This analysis is presented in Chapter 4 of this Report.)

Beds are not well managed at WMRH. Beds are opened to accommodate patients waiting in the ED or to accommodate an elective admission at the insistence of the attending physician.

The analysis of clinical efficiency also indicates that some areas of the WMRH site are experiencing occupancy rates above 100% and that 'unfunded' beds are opened to accommodate patients waiting in the ED or to accommodate an elective admission at the insistence of the attending physician.

There are patients occupying acute medical beds who are clearly "Alternate Level of Care" (ALC) but who have not been declared as such because the physicians do not want to place the burden of co-payment on the family. Surgeons are booking major cases in the OR when there is a good likelihood that a critical care bed will be required but without first arranging for the bed.

There is no real effort by the RMAC or its RRUC to manage the beds and services at the WMRH site and inappropriate use has been passively condoned.

These are but some of the utilization management issues facing the Corporation. The issues have been ongoing for a protracted time period. Efforts to deal with the physician who are not meeting expectations have met with resistance. The RMAC has not dealt adequately with the issue. Some if not all Discipline Chiefs have been reluctant to address the performance of their members for fear of loosing referrals. In general terms there is no real effort to manage the beds and services at the WMRH site and inappropriate use has been passively condoned.

The RMAC and the Regional Resource Utilization Committee must bring the use of beds under control at the WMRH site and deal once and for all with physicians who are abusing the system. Physicians must not be permitted to blatantly ignore efficient practices regarding ALOS expectations, MNRH or designation of ALC status. The RMAC must determine the appropriate consequences for physicians who continue to abuse the use of the Corporation's beds and the consequences must be implemented with the full endorsement and support of RMAC.

The Regional Resource Utilization Committee should seriously review all ALC patients including those patients known or suspected to be ALC but not yet designated. These patients should be designated ALC and a plan should be developed in concert with the Nursing Staff to cluster these patients geographically so that an appropriate level of care can be provided. If such a plan is developed the RMAC must ensure that additional beds are not added back into the WMH site through further mismanagement of bed utilization.

3.5.4.1 Regional Utilization Plan

The RRUC was identified as the "champion" of the Regional Utilization Plan.

The WHCC Regional Utilization Plan was drafted in February 2003 and approved in April 2003. The RRUC was identified as the "champion" of the utilization plan. The goals of the plan are:

1. To improve the availability of inpatient beds and services. This is to be achieved by reducing the number of inappropriate admissions to acute care, reducing lengths of stay, and reducing overall occupancy to 93% and thereby reducing off-service patients. An expected date of discharge pilot project has been completed.
2. To improve the quality of clinical information. This is to be achieved by conducting a review of clinical information

needs, improving identification and recording of diagnostic information contributing to CMG and complexity assignment, and initiating early identification of ALC patients.

3. To coordinate and improve the discharge planning process. This is to be achieved by developing and implementing a standardized discharge planning process, and by increasing patient/family awareness of discharge expectations.

4. To improve access to surgical services. This is to be achieved by developing a regional wait list, reconvening the WMRH OR committee, and improving access to day surgery.

5. To introduce best practices/models to promote quality improvement, accessibility and sustainability. This is to be achieved by developing clinical pathways, and by defining a process whereby guidelines/protocols are established.

6. To increase awareness regarding utilization. WHCC staff are reviewing structures and process in place in other regions and will establish a utilization management SWAT team at the WMRH site.

We support the goals of the utilization plan and the focus on increasing the awareness, participation, and support of the medical staff in utilization and quality improvement activities.

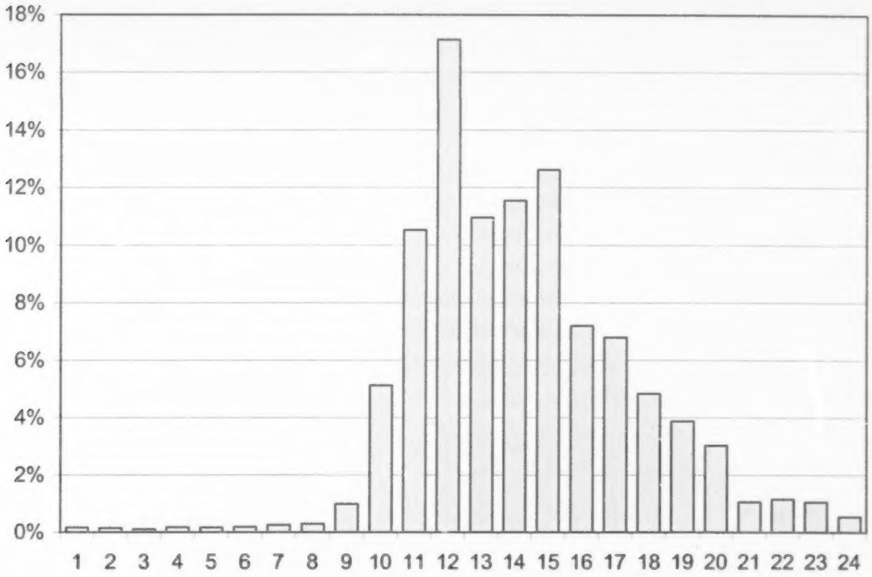
A current initiative of WHCC related to this plan is the 'Discharge by 11 a.m. Project'. WHCC policies require that physicians provide 24 hours notice of a patient's discharge and that they either make rounds early enough to support the 11 a.m. discharge or write the discharge order in advance. But medical staff were not complying with the policy.

In 2001/02, analysis of the WMRH CIHI data shows that only 18% of inpatients were discharged before 11 a.m. 22% of WMRH inpatients were discharged after 4 p.m., making it extremely difficult for the vacated bed to be used for new elective admissions.

Exhibit 3.4. shows the 2001/02 distribution of WMRH acute care inpatient discharges by discharge hour. The most common discharge time was between 12 and 1 p.m.

Exhibit 3.4

Distribution of WMRH 2001/02 Inpatient Discharges by Time of Discharge



The plan was updated in April 2004. Progress has been achieved with the implementation of the 11 a.m. discharge awareness campaign, the increased awareness of the importance of coding comorbidities resulting from the EDD pilot project, increased recording of ALC days, and preparation of draft physician profiles.

WHCC has not established specific targets for performance or improvement in clinical efficiency.

However, the plan does not include any targets for clinical efficiency in the region or any of its sites. And none of the Board, the administration, the RRUC, the Quality Council, or the Regional MAC have established specific, quantifiable targets for key utilization areas such as length of stay performance, occupancy, or ALC.

Recommendations:

It is recommended that:

(50) The RRUC should establish specific targets for key corporate utilization management indicators each year and monitor performance on a regular basis.

(51) The RRUC should establish targets for length of stay performance based on the Best Practice Review clinical efficiency targets and expressed in terms of CIHI ELOS performance.

In addition to clinical efficiency, there are significant operational issues that must be addressed by RMAC and management.

While the current mandate of the RRUC and the Regional Utilization Plan is focused primarily on the use of beds in the Corporation, there are other operational issues that must be addressed in a coordinated manner by the Corporation.

- Clinical Pathways: There has been some work on Clinical Pathways within the organization but there is much more that could be accomplished. A pathway has been implemented for the 5-day Cardiac Rehabilitation Protocol. Pathways are being developed for Total Knee Replacement, Transuretheral Resection of the Prostate. And the Medicine Performance Improvement Team has identified a need for pathways for COPD and strokes. The Maternal/Newborn team has identified a need for pathways for Caesarean Section, Premature Labour, and for Normal Delivery.
- Formulary Management: There is a need to ensure that drugs are scrutinized and the cost impact recognized and debated before drugs are added to the formulary was previously mentioned.
- Standardization of Instruments and Supplies: The medical staff should also be actively engaged in reviewing supplies and instrumentation to ensure standardization and to identify opportunities for cost reduction. There is no evidence that medical staff is engaged in any such discussions.

The Chief of Surgery should, immediately, bring a stop to the inappropriate use of the surgical suite for elective cases after hours and on weekends and the RMAC and its membership should provide him with its full, and unwavering support in this initiative.

- Surgical Suite Management: As is discussed elsewhere in this report, elective surgeries are now regularly scheduled after normal business hours in the evenings and on weekends. This is not an acceptable practice. The Chief of Surgery should put a stop to this practice immediately. The RMAC should instruct the Chief of Surgery to bring a stop to the inappropriate use of the surgical suite for elective cases. This intervention by the Chief of Surgery should be fully and unequivocally supported and endorsed by the RMAC and its membership (and the Board). Repeat offenders should have surgical privileges suspended and/or face financial penalties that may be more relevant such as in the case of the salaried surgeon.

The RMAC should further expand the mandate of the RRUC so that it takes a more comprehensive look at all aspects of clinical and operational efficiency as it relates to medical care and medical staff use of WHCC resources across the Corporation. Alternately the VP Medical Services should take the lead to ensure that a process is established to review all aspects of clinical and operational efficiency related to the Medical Staff and medical care and present the findings to the RMAC for action. It was noted from the minutes of March 2004 that some effort may be underway to start this process.

Recommendations:

It is recommended that:

(52) **The RMAC should expand the mandate of the Regional Resource Utilization Committee to include a more comprehensive look at all aspects of the impact of medical care on the resources of the corporation.**

(53) **The VP Medical Services should establish a process to facilitate review all aspects of the impact of medical care on the resources of the corporation.**

(54) **The Chief of Surgery should take action to stop the inappropriate use of the surgical suite for elective cases.**

3.5.4.2 Clinical Data Quality and Reporting

Lack of confidence in the quality of clinical data has been a barrier to successful utilization management.

Lack of confidence in the quality (and timeliness) of clinical data has been repeatedly identified by the RRUC and the RMAC as a barrier to successful utilization management.

The Corporate Performance Improvement group and Health Records have distributed materials to physicians emphasizing the importance of complete documentation of patient conditions and comorbid diagnoses, but additional diagnoses (beyond the most responsible diagnosis) are still under-documented. One goal of the expected date of discharge (EDD) program has been to demonstrate to physicians the relationship between additional clinical information and the calculated EDD.

Utilization Management at WHCC has been frustrated by an apparent lack of engagement of many of the medical staff in providing comprehensive and timely clinical documentation for their patients.

We were impressed with the work that Corporate Performance Improvement and Health Records have done to generate information to support utilization management and quality improvement activities within the region. Their work has been frustrated by apparent lack of engagement of many of the medical staff in providing comprehensive and timely clinical documentation.

Until quite recently, ALC days were substantially under-reported, since only patients designated as having been medically discharged could be recorded as ALC. Now most patients designated as having been ALC according to CIHI standards are recorded as ALC.

WHCC has used a version of the Appropriateness Evaluation Protocol to conduct periodic (and sometimes concurrent) assessments of the appropriateness of inpatient admissions and ongoing stays. The data has shown opportunities to reduce admissions and length of stay, but has not had a significant impact on utilization practices.

The medical staff often challenge the accuracy of utilization data. Our impressions from review of RRUC minutes was that the medical staff are unwilling to accept that there are limitations in most data, and have established a threshold for data quality that cannot be met, given the inadequacies of documentation provided by the medical staff.

The November 2003 WHCC draft strategic plan for September 2003 through March 2007 identifies improvement in the quality of inpatient utilization data as a priority for the organization to achieve a goal of evidence-based decision-making in the areas of mental health, medicine, and surgery, by 2007. It does however identify a requirement for an improved technological infrastructure as a prerequisite for achieving the goal of evidence-based decision-making. We caution WHCC not to assume that.

And, the strategic plan does not identify any specific targets for any of the identified measures of hospital performance.

3.5.4.3 Physician Engagement in Utilization Management

WMRH lengths of stay have been consistently more than 20% longer than the CIHI expected LOS since 1999/2000, and recently more than 30% above the CIHI ELOS.

WMRH lengths of stay have been consistently more than 20% longer than the CIHI expected LOS since 1999/2000, and recently more than 30% above the CIHI ELOS.

The long lengths of stay have contributed to the high occupancy rates, necessitating off-service placement of patients, and the potential risks associated with placing patients on units where the staff are not familiar with their care requirements. It was reported that many physicians see the high occupancy rates as an administrative problem. The long lengths of stay have also increased the costs of care and contributed to the WHCC deficit.

As has been discussed, WHCC has been unable to address physician utilization issues, particularly at WMRH. Although some early work has been completed in changing the job descriptions of the clinical chiefs to reinforce their responsibility for ensuring efficient utilization and quality care. There is some concern that even with more clear descriptions it will be difficult for the chiefs to challenge their colleagues.

WHCC is planning to hire a physician to lead a WMRH Utilization Management Team. This individual would work exclusively on utilization issues and would not be dependent on referrals of patients from the other medical staff.

WHCC is also considering the implementation of a hospitalist program at WMRH, so that physicians knowledgeable in hospital processes and engaged in utilization management could assume responsibility for inpatients that would otherwise be managed through their hospital stay by family practitioners.

Given the longstanding challenges of engaging physicians in utilization management, we support both the introduction of a physician leader with responsibility for utilization management and the establishment of a hospitalist program at WMRH. It will be important, however, that part of the role of the physician UM leader is to increase the participation of other medical staff in utilization management activities, so that utilization management is not seen as someone else's responsibility. WHCC should consider hospitalist models that make use of local family practitioners and do not require that primary care physicians abandon all elements of hospital practice.

3.5.5 RMAC Quality Initiatives

A great deal of emphasis has been placed on Quality Initiatives over the last decade or more across Canada. It is reasonable to expect therefore that in the year 2004, Medical Staffs should have a well-developed Quality Review Program. This is not the case with the Western Health Care Region.

There is no Medical Staff Quality Review Program, either at the regional level or the department level. A meaningful program should be applicable to all Medical Departments across all sites and should include relevant benchmarks and indicators as well as mechanisms for evaluation and a mechanism for reporting to the RMAC.

Chart Audits, Trending Analyses, Mortality and Morbidity Rounds, Clinical Pathways, Patient Surveys and Peer Assessments are some of the vehicles that may be used as elements of the Program.

A complete and current medical record is an essential tool for ensuring the continuity, quality and safety of patient care. Medical staff must complete charts for their patients.

There are now more than 2500 incomplete medical charts at the WMRH site (and more than 4600 across the region) and charts are often coded without a complete discharge summary. If a patient whose chart is incomplete from a prior visit presents at the ED or is admitted, health records may not be able access the chart, since it would not yet be properly filed. The Medical Staff are not completing these in a timely fashion. The issue has been outstanding for far too long and the RMAC must ensure that this situation is resolved. A complete and current medical record is an essential tool for ensuring continuity of patient care and the issue should not be ignored any longer. The RMAC should clearly communicate the expectation to the Medical Staff that medical records must be completed in a timely fashion. Failure to do should result in penalties including but not limited to suspension of privileges and reporting to the Newfoundland Medical Board. It should be noted that draft policies and changes to the medical staff rules and regulations to promote more prompt completion of charts are being developed. However, the issue is clearly not the presence of an appropriate regulation, but the will to require and enforce safe practices by the medical staff in the region.

The RMAC should ensure the development of an appropriate and relevant Medical Quality Improvement Program for WHCC.

The Corporation has a Quality Council in place and has made numerous requests to RMAC for representation from the Medical Staff on the Council. The minutes of the RMAC first record this request in February 2003. In March 2004 the RMAC minutes indicate that no practicing physician has agreed. The degree of effort that the RMAC has put into the recruitment of a physician for the Quality Council is not recorded but it is difficult to accept that there are no physicians within the Corporation willing to participate in such an important corporate endeavor.

The RMAC should ensure that an appropriate and relevant Medical Quality Improvement Program is developed and that expectations are communicated to the Medical Staff Departments regarding their participation in such a Program. The RMAC should develop a mechanism to receive relevant and timely Reports about the Medical Staff Quality Initiatives on a regular basis.

Recommendations:

It is recommended that:

(55) **The RMAC Chair and the VP Medical Services should develop and implement an appropriate and relevant Medical Quality Improvement Program.**

(56) **The RMAC should suspend the privileges of Medical Staff that do not complete medical records in a timely fashion.**

(57) **The RMAC should appoint an appropriate member of the Medical staff to participate in the Corporate Quality Council.**

3.5.6 RMAC Effectiveness

3.5.6.1 Policy Development

The RMAC must formalize the process for development of policies. Some policies are just not optional and the Chair of RMAC and the VP Medical Services must be more proactive in educating the members of RMAC about their role in policy development and ensuring that RMAC deals appropriately with its obligations in this regard.

The process for development of Medical Staff policies is unclear. Policy suggestions are brought forward to the MAC by Discipline Chiefs or Chiefs of Staff. Some examples include policies related to chart completion, on call coverage, credentials, patient referral and the use of oxytocin. Background documentation about the rationale for the policy and the content and application of the policy is scant. There is insufficient leadership at the MAC to adequately champion policies that must be developed and enforced. The credentials policy is the most blatant example.

The smaller sites within WHCC are experiencing difficulty referring patients to appropriate specialists and finding a physician who will accept the transfer of patients.

Another good example however is the issue of the referral process. The smaller sites within the Corporation are experiencing difficulty finding a physician who will accept the transfer of patients or assisting with the referral of the patient to an appropriate specialist. The RMAC minutes of February 18, 2004 highlighted this issue. In particular the Chief of Family Medicine identified that the problem had been brought to his attention on two separate occasions by nursing staff of the Sir Thomas Roddick Hospital.

The RMAC minutes of November 2003 indicated that "it was the general consensus that for the most part specialists accept responsibility for care of the patient and ensure appropriate referral to another …. It was suggested that the transferring physician ensure they receive confirmation of acceptance from the receiving physician. It was also felt that individual physicians should be approached regarding treatment provided in the two cases identified."

There was no assignment of responsibility to follow up on this item nor was there any attempt to ensure that a clear policy was put in place to manage the transfer of patients nor was there any responsibility accepted by the RMAC to communicate their expectations to the Medical Staff.

A policy and process for transfer of patients within the various facilities of the Corporation must be established.

A policy and process for transfer of patients within the various facilities of the Corporation must be established and communicated clearly to all Medical Staff and Nursing staff. There must be delineation of responsibilities of the physician transferring the patient as well as the physician receiving the patient. The process must be sufficiently robust so that patients are not compromised.

Recommendations:

It is recommended that:

(58) The RMAC Chair and VP Medical Services should formalize the process for development of medical care and medical staff policies.

(59) The RMAC should establish a policy and process for transfer of patients between and within the various facilities of the Corporation.

3.5.7 *Physician Human Resource Planning and Impact Analysis*

The latest Physician Resource Plan was developed in 2000. It identifies the current complement of Physicians in each discipline, impending retirements and recommendations for future requirements. There is no indication of impact analysis for any of the new recruits or replacements for retirement at this time but this impact analysis will obviously be needed before any firm commitments are made.

The medical manpower plan is currently outdated.

The VP Medical Services and the RMAC should review the manpower plan on annual basis. The Plan is currently outdated. The Physician Resource requirements and financial impact should be clearly identified. The resource requirements will be affected by a variety of factors including population demographics and disease profile, physician lifestyle expectations, compensation models for physicians and other things. The factors affecting physician resource requirements should be identified and considered as the Plan is being developed.

There is some concern about the manner in which the need for new physicians is identified. As an example The RMAC approved the recruitment of a 3rd ENT specialist against the recommendation of the Discipline Chief in ENT as noted from the minutes of RMAC dated January 2003. While this may be the correct decision there should be some population-based data, workload data or lifestyle basis that gives support to the decision. None of this evidence was clearly presented to the RMAC and so the full rationale for the decision is not evident.

The VP Medical Services should ensure that appropriate impact analysis is completed for all new and replacement physicians in advance of any firm commitment and that the resources are available to accommodate these physicians.

Also, there are examples of requests from individual physicians being presented directly to the RMAC without first being considered by chief of discipline and/or the chief of staff. Requests for actions by the RMAC from individual or groups of members of the medical staff should, in all cases, be first considered and then presented by a chief of discipline and/or the chief of staff.

The RMAC should insist that all requests for resource expenditure that are brought before them are thoroughly assessed before presentation and that the request is one that is a high priority need for the Corporation.

There are a number of physicians who were sponsored for training on the basis that they return to the Corporation. The Corporation should take a serious look at its contracts with trainees to ensure that the right incentives/disincentives are in place to ensure the obligations are fulfilled. Additionally the Corporation should ensure that a mechanism is in place to maintain contact with sponsored physicians to develop the relationship and provide the assurances of ongoing support.

When considering the Corporation's manpower requirements, the RMAC must also consider the impact of the salaried versus fee-for service compensation structure for physicians. There is a generally held view among many of the physician leaders that the salaried physician's performance in terms of volume of patients seen, willingness to engage in on-call schedules is less than that of fee-for service colleagues in geographic locations where there are sufficient numbers of patients to support a fee-for-service practice.

There are no performance agreements between the Corporation and salaried physicians that clearly define performance expectations.

There are no performance agreements between the Corporation and salaried physicians that clearly define performance expectations. If such performance agreements exist at the provincial level, the Corporation states that it has no knowledge of them. There is therefore a significant variation in practice capacity for some physician that may significantly impact the number of physicians required to meet the needs of a large population. There is also some belief that waiting list have grown when specialist have changed status fro fee-for-service to salary.

The Corporation should undertake to understand whether differences exist in both quality and volume of service between salaried and fee-for-service physicians. Service agreements should be developed with all salaried physicians and the comparative information along with other relevant data should be used to inform the discussions.

Recommendations:

It is recommended that:

(60) The VP Medical Services and the RMAC should review the medical manpower plan on annual basis.

(61) The VP Medical Services should ensure that appropriate impact analysis is completed for all new and replacement physicians.

(62) The VP Medical Services should maintain contact with sponsored physicians and ensure that obligations are fulfilled.

(63) The VP Medical Services should develop and negotiate service agreements with all salaried physicians.

3.5.8 Medical Departments/Clinical Disciplines

The Clinical Organization is outlined in the Bylaws in Section 16.1. There are nine (9) Regional Clinical Disciplines including Anaesthesia, Family Practice, Medicine, Obstetrics and Gynecology, Paediatrics, Pathology and Laboratory Medicine, Psychiatry, Diagnostic Imaging, Surgery. Within each Discipline there may be a number of Divisions.

3.5.8.1 Meetings of the Disciplines

Most Disciplines appear to be meeting on a regular basis with varying success in terms of attendance by members. Attendance at meetings is an important vehicle for exchange of information, dealing with issues around professional practice, resource utilization, professional development, future planning for the Discipline and other matters. All members have a contribution to make to the discussions and should be actively encouraged to attend meetings and a minimum number of attendances should be mandatory for retention of privileges.

Recommendation:

It is recommended that:

(64) The Chiefs of Discipline should ensure that Physicians' attendance at Meetings of the Discipline is a part of annual performance assessment before re-appointment.

3.5.8.2 Role of Chiefs of Disciplines

Important outstanding issues that are not being adequately addressed by the Discipline Chiefs.

The roles of the Discipline Chiefs are outlined in the Bylaws although it is not evident from discussions at the RMAC as previously noted, that the Chiefs fully understand their role. It is clear however that many of the Chiefs are not acting on their responsibilities in an appropriate manner. This issue has also been highlighted elsewhere. There are many outstanding issues that are not being adequately addressed by the Discipline Chiefs. In discussions with the Chiefs and also from review of the RMAC minutes some of these issues include:

- Long standing conflict within disciplines such that the membership is dysfunctional. Some examples identified were Anaesthesia, Paediatrics and Surgery
- Failure to coordinate leaves of absence (RMAC Minutes, October 2003)
- Physician- On-Call responsibilities (RMAC Minutes, September 2003)
- Manpower Planning and Impact analysis
- Discipline of membership for inappropriate use of resources including but not limited to family practitioners and surgeons
- Professional development requirements

There are significant structural deficits with respect to the roles, responsibilities and behaviours of Discipline Chiefs:

- Beyond what is articulated in the Bylaws regarding role, there are no job descriptions for the positions of Discipline Chief in WHCC.
- The Corporation does not negotiate performance expectations with each Discipline Chief
- The Corporation does not execute a contract with each Discipline Chief
- The Corporation, through its RMAC, does not evaluate the performance of each Discipline Chief annually

The RMAC Chair should re-enforce the role of the Discipline Chief, ensure that each Chief understands the role and is prepared accept the responsibilities and that each Chief is given adequate education and support to assume the assigned responsibilities and manage the issues.

Recommendations:

It is recommended that:

(65) The VP Medical Services should develop job descriptions for the role of Discipline Chief.

(66) The VP Medical Services should negotiate contracts and performance expectations with each Discipline Chief.

(67) The RMAC Chair supported by the VP Medical Services should evaluate the performance of each Discipline Chief annually.

3.6 Nursing Management

Health care organizations are "held together, glued together, enabled to function….by the nurses".

Health care organizations are "held together, glued together, enabled to function….by the nurses."[27] Nurses who practice at Western Health Care Corporation are challenged to engage in the complexities and excitement of patient care delivery in the 21st century. WHCC nurses are key in creating the vision of a community of excellence and achieving the organization's vision and strategic direction.

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[27] Thomas, Lewis. "The Youngest Science" as cited by Needleman, et al in "Nurse-Staffing levels and the Quality of Care in Hospitals", New England Journal of Medicine, Volume 346, No. 22. Page 1715. May 30, 2002.

3.6.1 The Role of Nursing within the Corporation

There is a general concern regarding the role of nursing within the organization and that the current management structure does not provide for an adequate voice for nursing within senior management. Much of the literature today emphasizes that nursing, and ultimately the quality of patient care, is strongly influenced by the chief nursing officer (CNO) position, its role within the organization and the leadership capabilities of the incumbent.

3.6.1.1 Role of the Chief Nursing Officer

The current approach to nursing leadership is diminishing the importance of nursing within the organization.

Within the current structure at WHCC, the role of the Chief Nursing Officer (CNO) rotates periodically between VPs with nursing designations. These individuals also have other, continuing operational responsibilities. This is a less than ideal situation. This approach to nursing leadership is diminishing the importance of nursing within the organization. It is a temporary responsibility and it is secondary to the person's continuing set of responsibilities:

- There will likely be inconsistencies in the execution of the role
- The role will not be of primary importance to the incumbent
- There is no continuing champion for nursing within the Corporation

There should be a permanent position of Chief Nursing Officer.

Ideally, there should be a permanent position of Chief Nursing Officer for the region without additional operational responsibilities. Minimally, the responsibilities of CNO should be a permanent responsibility of one individual.

The CNO should play a key role in planning and delivering services in support of the WHCC's fundamental commitment to the quality of patient care. Reporting to the CEO, the CNO would be a member of the Senior Management Team, working closely and collaboratively with the Vice-Presidents, and the Chief of Staff.

With a strong focus on quality improvement, the CNO should, first and foremost, be an advocate for nursing practice. The CNO should provide significant and continuing leadership in the challenging and exciting task of planning, implementing and evaluating region-wide services and programs. This role could also oversee a broad range of key strategic areas related to nursing: Professional Practice, Quality Improvement, Accreditation, Ethics, Clinical Education, and Research. The role of CNO is generally expected to bring to bear on corporate planning, the knowledge of best nursing practice and the experience of the region's dedicated nursing staff and managers.

This is a demanding role particularly within a regional structure and consideration should be given to a role separate from any operational responsibilities. Such a role could be more active in promoting the nursing professional practice model of shared/self governance.

Recommendation:

It is recommended that:

(68) The Chief Executive Officer (CEO) should create a non-rotating Chief Nursing Officer (CNO) position separate from the role of Vice-President.

3.6.1.2 Regional Director of Nursing Practice

In recognition of the deficits in the current approach to nursing leadership and in an effort to support and advance the role of nursing professional practice, a Regional Director position was created and reports to the rotating CNO position. This is an important role to support the development of consistent policies and practices across the region. Distances make it difficult for one individual to provide direct support, but use of various communication media are in place and should be continued.

3.6.1.3 Education and Specialty Roles

Apart from the role of Regional Director of Nursing Practice there are few clinical education/resource supports for nursing. Education is a centralized function and provides support for organization wide training such as orientation. Although the Education Department is responsible for ensuring nursing staff maintain their competency, it relies heavily on the Directors of Nursing for input into the necessary content and timing of training. There is a perception among Directors of Nursing that it is very difficult to get expertise for updating and/or maintaining clinical competency particularly in specialized areas.

There is a need to introduce advanced practice nursing roles to the region to support clinical competence in the delivery of patient care and to maintain best practice. It is suggested initially that the region re-instate the Clinical Nurse Specialist role for LTC. More discussion is provided in a following section on long term care.

Recommendation:

It is recommended that:

(69) The CNO should add advanced practice and/or education roles at WHCC to support best practice nursing care in the region.

3.6.2 Nursing Organization Structure

3.6.2.1 Roles & Titles

The role of Director of Nursing appears at all sites across the region. At all sites except in Corner Brook these roles also have responsibility for site coordination. Their title does not accurately reflect their responsibilities. It is also unusual to see the title of Director of Nursing. In many organizations this role/title no longer exist. It is suggested that consideration be given to a change of title that more accurately reflects the important role these individuals have in the delivery of service at their sites and within the region. Something like Director of Patient or Resident Care would be more appropriate.

The role of Assistant Director of Nursing within WHCC is that of a front-line patient care manager. They generally have responsibility for at least 2 patient care units or areas. They have responsibility for approximately 70-110 staff. This is not an unusual span of control and is seen in other organizations. However, we have concern regarding the lack of education and/or advanced practice nursing roles to support nurse managers and staff. And again, the title for this position does not accurately reflect its responsibilities or role within the organization. Consideration should be given to changing the title to one such as Patient Care Manager that more appropriately reflects their role.

Recommendation:

It is recommended that:

(70) The CEO should change the titles of the nursing administrative roles to better reflect the work content of these positions.

3.6.2.2 Nursing Advisory Councils and Team Structures

Within WHCC there is a regional and local nursing advisory council structure. These councils are designed to develop, implement, monitor, and evaluate nursing professional standards and practices. The membership of the Regional Nursing Advisory Council (RNAC) includes Directors of Nursing from all sites, the Regional Director of Professional Practice, and representatives from other corporate advisory councils and clinical support teams. This Council provides oversight, leadership and direction in the development of nursing clinical policies and procedures. There is a need to involve more front-line staff on this council and there is a move toward using this structure as part of process for strengthening the approach to shared governance.

The Local Nursing Advisory Councils (LNAC) provide the opportunity for front-line staff to contribute to the development of nursing policies and standards and to participate in the implementation of regional practices. The Director of Nursing for each site is the liaison between the Regional and Local councils.

Both the Local and Regional Councils meet 8 times per year. With improved electronic and other mechanisms for communication, it is suggested that meeting frequency be reviewed. The Regional Council should be able to fulfill its role of oversight and direction with quarterly meetings.

The structure of regional and local councils is seen in other regional jurisdictions and should enable the organization to advance the practice of nursing within the corporation.

Recommendation:

It is recommended that:

(71) The Chief Nursing Officer should streamline the operations of the Regional Nursing Advisory Council and ensure appropriate representation of front-line nursing staff on this council.

The Role of Program Teams and Site Performance Improvement Teams and their relationship to Nursing Councils is unclear.

In addition to Nursing Advisory Councils the corporation also has two team structures that are involved in the development of policies and procedures. There are Program Teams (e.g. Long Term Care) and Site Performance Improvement Teams (SPIT). These teams meet frequently. As a result, Nursing Directors and Regional Directors and staff representatives are involved in a large number of meetings.

There is also a lack of clarity about each group's role in the development of policies and procedures, the appropriate communication processes and the approval process. This is resulting in poor communication, apparent duplication of work and a significant amount of frustration among the staff.

Policy & procedure development and approval process a problem.

The process for policy development is a significant problem for the region because of the lack of clarity in roles and who is doing what. Approval processes appear to be cumbersome.

It also appears that all policies have to go to senior management for approval. This adds another layer and creates delay. A recent example is of 51 policies from one program that had to go to the senior team. Often staff are already doing an activity before approvals are obtained or they are waiting too long before implementing appropriate changes in practice.

Recommendations:

It is recommended that:

(72) **The CEO should review the management and committee structures to ensure clarity of roles and to reduce the number of meetings.**

(73) **The CEO should develop structures and processes that improve the timeliness of policy approvals.**

4.0 Programs & Services

Western Health Care Corporation operates nine facilities in six communities and 22 medical clinics.

Western Health Care Corporation operates nine facilities in six communities and 22 medical clinics. The nine facilities include two hospitals: Western Memorial Regional Hospital in Corner Brook, and Sir Thomas Roddick Hospital in Stephenville; four health centres: Calder Health Centre in Burgeo, Bonne Bay Health Centre in Norris Point, Rufus Guinchard Health Centre in Port Saunders, and the Dr. Charles Legrow Health Centre in Channel-Port Aux Basques; and two long term care centres: Bay St. George Long Term Care Centre in Stephenville Crossing and Corner Brook Long Term Care, which includes the Dr. J.I. O'Connell Centre and the Interfaith Home for Seniors in Corner Brook and the 5th and 6th floor of Western Memorial Regional Hospital. Together, these facilities provide approximately 266 acute care beds, and 441 long-term care beds[28]. Seventy percent of the acute care beds are located at Western Memorial Regional Hospital, and the other thirty percent are located across five facilities.

WHCC Activity Volumes for 2002/03.

During 2002/03, in WHCC facilities, there were:

- 9,348 admissions to acute care,
- 137 long-term admissions to long-term care,
- 79,769 visits to the Emergency and outpatient clinics,
- 12,937 OR and procedure room visits, and
- 629 births.

The twenty two medical clinics are located within 6 districts of the region: South West Coast (3), Bay St. George (5), Bonne Bay (5), Deer Lake/White Bay South (4), Burgeo (4), and Corner Brook (1).

The focus of this section of the report is analysis of utilization of WHCC hospital services by the residents of the region, and identification of opportunities to find efficiencies that will allow the Corporation to best meet the needs of the population within the available resources.

Data Sources

To support the analysis of utilization of hospital services, we obtained Canadian Institute for Health Information (CIHI) discharge abstract database (DAD) data from the

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[28] As of March 31, 2004 as confirmed by hospital staff on October 19, 2004.

Newfoundland and Labrador Centre for Health Information (NLCHI). This data included all inpatient and same day surgery (SDS) separations from Newfoundland and Labrador acute care hospitals during fiscal year 2001/02 (which was the most current year for which complete provincial data was available to the project).[29]

The NLCHI edited the data (including geographic assignment, based on patient residence) and then forwarded the edited dataset to CIHI for application of updated Case Mix Group (CMG) and Resource Intensity Weight (RIW) assignments. The data was grouped using the CMG 2003, using revised ICD-10 translations and the revised grade list diagnoses. The CMG 2003 and RIW 2003 assignments were used so that the data would be compatible with data available to the consultants from the annual CIHI/HayGroup Benchmarking Analysis of Canadian Hospitals. The updated assignments also minimized the potential impact of previously identified ICD-10 to ICD-9 code translation errors and reduced the impact of the "upcoding" of grade list diagnoses in the comparative data from Ontario.

Program Assignment

All of the acute care data was assigned to a "program cluster category" (PCC) to support program-based analysis. The PCCs are similar to the major clinical category groupings of CMGs used by CIHI, but are subdivided by medicine and surgery. PCCs were used instead of doctor service categories to overcome the limitations of variation in doctor service assignment across organizations and jurisdictions.

Exhibit 4.1 shows the program cluster categories and the total distribution of 2001/02 inpatient and SDS activity in the hospitals operated by the Corporation. In 2001/02 the average length of stay for inpatients overall was 7.9 days. 6.3% of inpatient days were reported as "alternate level of care" (ALC), or patients who no longer required acute care and were awaiting placement elsewhere.

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[29] More current data was available for discharges from WHCC facilities, but consistently grouped and edited data for the entire province was only available for 2001/02 at the time of the review.

Exhibit 4.1
2001/02 Inpatient Activity in WHCC Hospitals by Program

H&CS - Western					
Program Cluster	IP Cases	IP Days	Avg. LOS	% ALC	SDS Cases
Cardiology	1,217	10,424	8.6	6.3%	1
Psychiatry	647	8,282	12.8	7.0%	52
General Surgery	895	8,282	9.3	4.6%	634
General Medicine	689	8,006	11.6	13.7%	6
Pulmonary	731	6,135	8.4	9.1%	0
Gastro/Hepatobiliary	896	4,617	5.2	2.6%	424
Trauma	437	3,647	8.3	8.8%	28
Neurology	376	3,500	9.3	18.1%	0
Obstetrics	1,005	3,475	3.5	0.2%	15
Orthopaedics	450	3,100	6.9	4.7%	308
Oncology	276	2,914	10.6	3.8%	30
Urology	435	2,502	5.8	3.0%	162
Neonatology	707	2,311	3.3	0.8%	0
Vascular Surgery	108	1,961	18.2	7.6%	16
Endocrinology	222	1,939	8.7	0.5%	1
Gynaecology	429	1,906	4.4	0.0%	891
Nephrology	110	1,253	11.4	10.2%	14
Haematology	101	698	6.9	0.0%	2
Cardio/ Thoracic	39	615	15.8	3.6%	1
Rehabilitation	30	594	19.8	4.4%	0
Otolaryngology	286	488	1.7	0.0%	177
Rheumatology	48	409	8.5	32.3%	0
Dermatology	39	236	6.1	0.0%	55
Plastic Surgery	30	162	5.4	0.0%	8
Ophthalmology	53	132	2.5	0.0%	467
Not Generally Hosp.	35	111	3.2	0.0%	51
Neurosurgery	5	88	17.6	0.0%	48
Dental/Oral Surgery	1	7	7.0	0.0%	304
Ungroupable	1	3	3.0	0.0%	0
Grand Total	10,298	77,797	7.6	6.6%	3,695

4.1 *Populations' Utilization of Programs & Services*

The analyses of utilization of programs and services are based on the assignment of patients to geographic areas according to their place of residence, not the location of the hospital that provided their care. Utilization data organized in this manner can be used to assess the rates of use of hospital services by the populations of different geographic communities, and to identify patterns of reliance on individual hospitals.

4.1.1 *Program/Service Population Utilization Rates*

The basic measure of utilization of acute care services used for this project is the number of hospital separations (both inpatient and day surgery) per 10,000 population used by the residents of a geographic area. The rates are "age/gender standardized", meaning that they are adjusted to reflect the age and gender composition of the population. This allows comparisons of rates across regions that may have very different demographic structures. This is necessary because the elderly rely much more on acute care hospital services and a region with a higher percent of elderly residents will have much higher crude rates of use of hospital services. Standardization removes the impact of the differences in distribution of residents by age, and allows more direct comparison of the propensity of populations to use acute care hospitals for their health care.

Standardized utilization rates are compared across regions to help identify populations for which there may be opportunities to modify their patterns of reliance on hospitals or for which increased investments in non-hospital health services may be required.

The initial assumption when comparing utilization rates is that after standardization, all other factors being equal, all communities should have similar utilization rates, which reflect the natural burden of illness and injury, and the services that hospitals provide to treat these illnesses and injuries.

When a community is identified with high utilization, it may reflect:

- Unnecessary over-servicing of population (i.e. capacity for acute care greater than need for acute care).
- Necessary response to poor health status of population (i.e. a burden of illness greater than would be expected, given the population demographics, due to factors such as environmental challenges, lifestyles, or poor socio-economic status).
- Lack of availability of alternative non-hospital health care providers (i.e. the hospital plays a broader role in the provision of primary or long-term care because of inadequate capacity of these services in the community).
- Geographic impacts, where the threshold for admission to (and discharge from) a hospital in a region with a widely distributed population may be very different from the threshold in a densely populated urban area.

Low utilization may reflect:

- Under-servicing of a population (i.e. insufficient capacity to respond to population need).

- Appropriate response to population with good health status (and less need for care).
- Reduced reliance on hospital care because of enhanced availability of primary and community care.

4.1.2 Demographic Profile of Population in Region

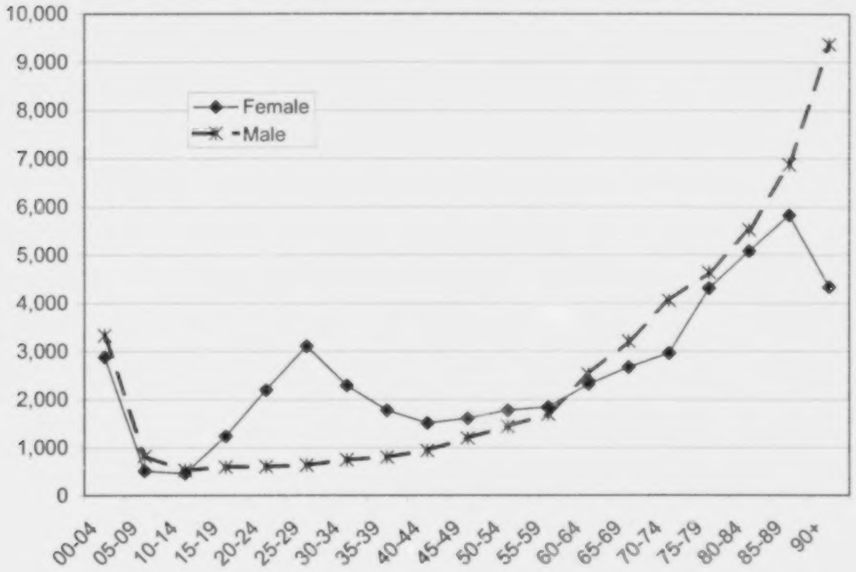
Exhibit 4.2 shows the distribution of the 2001 populations of each Newfoundland and Labrador health region by gender and age. The Western region has a slightly higher than average proportion of the population who are over 60 years old.

Exhibit 4.2
Distribution of Newfoundland and Labrador Population by Age/Gender Group (2001) by Health Board

Age/ Gender Group		H&CS - St. Johns	H&CS - Eastern	H&CS - Central	H&CS - Western	Hlth Labrador Corp	Grenfell RHSB	Nfld & Lab
Female	0 to 19	22,316	13,219	11,786	9,742	3,819	2,056	62,938
	20 to 44	38,206	19,249	17,645	14,577	4,924	3,140	97,741
	45 to 59	19,307	12,860	11,427	9,625	2,456	1,774	57,449
	60 to 74	9,489	6,930	6,602	5,375	596	894	29,886
	75 Plus	5,871	4,256	3,480	2,609	168	409	16,793
	Total	95,189	56,514	50,940	41,928	11,963	8,273	264,807
Male	0 to 19	23,206	14,082	12,445	10,310	3,843	2,223	66,109
	20 to 44	36,045	19,229	17,595	13,698	4,851	3,225	94,643
	45 to 59	18,454	13,013	11,322	9,491	2,741	1,705	56,726
	60 to 74	8,353	6,761	6,625	5,224	722	1,026	28,711
	75 Plus	3,097	2,914	2,662	1,859	120	338	10,990
	Total	89,155	55,999	50,649	40,582	12,277	8,517	257,179
Total	0 to 19	45,522	27,301	24,231	20,052	7,662	4,279	129,047
	20 to 44	74,251	38,478	35,240	28,275	9,775	6,365	192,384
	45 to 59	37,761	25,873	22,749	19,116	5,197	3,479	114,175
	60 to 74	17,842	13,691	13,227	10,599	1,318	1,920	58,597
	75 Plus	8,968	7,170	6,142	4,468	288	747	27,783
	Total	184,344	112,513	101,589	82,510	24,240	16,790	521,986
% Distribution	0 to 19	24.7%	24.3%	23.9%	24.3%	31.6%	25.5%	24.7%
	20 to 44	40.3%	34.2%	34.7%	34.3%	40.3%	37.9%	36.9%
	45 to 59	20.5%	23.0%	22.4%	23.2%	21.4%	20.7%	21.9%
	60 to 74	9.7%	12.2%	13.0%	12.8%	5.4%	11.4%	11.2%
	75 Plus	4.9%	6.4%	6.0%	5.4%	1.2%	4.4%	5.3%

Exhibit 4.3 shows the relationship between age and gender and use of acute care hospital services for Western region residents in 2001/02. Below the age of 60 years old, there are more hospital separations per population for females than males, because of hospital-based obstetrical and gynaecological services. Over the age of 60 years old, males (on average) use more hospital acute care. The steep slope of both the female and male curves between 55 and 85 years old reflects the dramatic increase in use of acute care associated with increased age.

Exhibit 4.3
2001/02 Utilization of Acute Care (IP & SDS)
by Age and Gender, per 10,000 Population – Western Region Residents



The Western region had a dependency ratio (the ratio of the children and elderly population to the working age population) in 2001 of 42.8, higher than the Newfoundland and Labrador provincial average of 40.6.

52.4% of the Western region population is considered to live in an urban centre, the highest percentage of any of the health regions outside St. John's.

12.5% of Western region residents report their self-rated health status as fair or poor, similar results as for the rest of the province.

Rates of asthma (6.0%) and diabetes (5.1%) are below the provincial average.

The average personal income for Western residents in 2000 was $19,981, approximately the same as the average income in the other regions outside St. John's, but almost $7,000 below the St. John's average income. 23.3% of WHCC residents are considered to be low income, a higher percentage than in the other large health regions in the province.

4.1.3 *Small Area Variation Analyses*

Small area variation analyses are comparisons of rates of utilization of health care services by populations. Health services researchers (notably Dr. Jack Wennberg, with his comparisons of use of health care services in Boston and New Haven) have used these analyses to help understand the factors that influence use of health care services and to help inform development of health care policy.

Exhibit 4.4 shows the age/gender-standardized rate of use of acute care services (measured as inpatient and SDS separations per 10,000 population) for the residents of each of the Newfoundland and Labrador health regions in 2001/02. Utilization rates are shown for all hospital programs combined and for individual programs. Use of hospital services is attributed to the region where the patient lives, not the region where they were hospitalized. Thus, if a resident of the Western region were hospitalized in St. John's, their utilization would contribute to the Western region utilization rate. Within each program area, the utilization for the region with the highest utilization is shown in bold.

The lowest rate of use of acute care hospital services in Newfoundland and Labrador is 1,713 separations per 10,000 population by the residents of the Eastern health region. The highest rate of use of acute care hospital services in Newfoundland and Labrador is 2,673 separations per 10,000 population by the residents of the Grenfell health region.

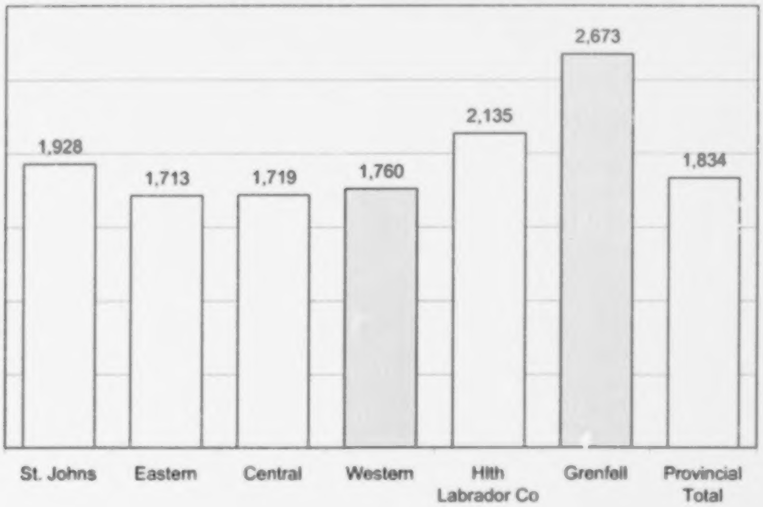
Exhibit 4.4
Age/Gender Standardized Rate of Use of Acute Care (IP & SDS Separations per 10,000 Population) by Program by Residents of Health Regions (2001/02)

Program Cluster	St. Johns	Eastern	Central	Western	Hlth Labrador Co	Grenfell	Provincial Total	Western % over Avg
Orthopaedics	80.2	66.0	105.2	87.9	81.5	**139.3**	85.2	3%
Neurology	28.1	31.9	41.1	44.8	51.8	**75.6**	37.0	21%
Neurosurgery	17.6	17.9	**20.8**	10.1	12.5	16.5	16.9	-40%
Rheumatology	4.3	4.1	6.9	5.7	**9.7**	8.7	5.4	5%
Dermatology	10.5	6.3	8.5	11.7	6.9	**13.7**	9.3	26%
Trauma	42.5	37.6	44.6	54.9	77.0	**79.5**	46.8	17%
Urology	173.2	144.8	150.7	87.6	114.5	**178.9**	145.4	-40%
Nephrology	10.8	9.8	10.7	**15.1**	10.7	11.2	11.4	32%
Gynaecology	71.4	95.0	114.7	**159.4**	100.5	150.9	101.5	57%
Obstetrics	119.8	105.6	117.6	140.5	157.8	117.4	120.4	17%
Neonatology	95.2	80.3	83.8	**95.6**	90.6	87.2	89.6	7%
Otolaryngology	87.3	78.7	59.6	59.2	**92.7**	74.7	75.7	-22%
Dental/Oral Surgery	54.8	**66.0**	36.9	38.3	45.7	56.6	50.6	-24%
Cardiology	82.7	115.0	150.5	135.9	162.5	**265.8**	121.8	11%
Cardio/ Thoracic	**41.8**	30.5	27.0	24.9	25.0	31.0	32.2	-23%
Pulmonary	65.9	74.4	84.2	82.7	**140.2**	131.8	78.5	5%
Oncology	**62.1**	50.9	42.8	44.5	52.8	44.2	51.6	-14%
Haematology	17.5	14.4	13.5	12.3	20.6	**21.5**	15.4	-20%
Endocrinology	25.0	21.8	21.7	28.4	39.0	**48.0**	25.2	12%
Psychiatry	82.1	43.2	62.6	**87.2**	76.3	62.0	69.5	25%
Ophthalmology	**72.3**	47.7	58.5	61.6	71.6	52.9	60.7	1%
Gastro/Hepatobiliary	309.2	248.3	148.1	162.8	301.8	**525.7**	243.6	-33%
General Surgery	224.9	199.3	200.0	189.8	210.3	**250.0**	207.1	-8%
General Medicine	74.0	71.6	76.4	80.2	116.6	**148.0**	78.7	2%
Vascular Surgery	16.3	17.4	**19.2**	15.5	16.9	15.9	17.1	-9%
Plastic Surgery	**13.6**	8.2	5.3	6.6	7.9	4.4	9.1	-27%
Rehabilitation	0.1	1.4	0.7	**3.5**	0.0	1.3	1.1	211%
Not Generally Hosp.	44.4	25.0	6.7	12.7	41.4	**57.9**	27.3	-54%
Ungroupable	0.6	0.1	0.2	0.1	0.3	**1.9**	0.4	-66%
Total	1,927.9	1,713.2	1,718.6	1,759.7	2,135.2	**2,672.5**	1,834.5	-4%

Utilization of acute hospitals by the Western region population is 4% below provincial average, third lowest of the six regions.

The overall utilization rates are shown in graph format in Exhibit 4.5.

Exhibit 4.5
2001/02 Age/Gender Standardized Rate of Use of Acute Care (IP & SDS Separations per 10,000 Population) by Residents of Health Regions



We obtained 2001/02 acute care utilization rate data from Ontario to compare with the Newfoundland and Labrador utilization rates. Regions served primarily by academic health science centres usually have the lowest utilization rates[30]. This is attributed to the greater availability of primary and community care, and hospital-based ambulatory care, usually found in the urban centres in which academic health science centres are located, and the greater adherence to principles of evidence-based medical utilization in an academic environment. Thus, the Toronto utilization rates were selected to demonstrate the minimum potential utilization in an urban centre.

A second Ontario region, the county of Grey, was selected based on its' population (89,000 people) and its' geography (a medium sized community hospital serving a largely rural population). While the population is similar in size to the population of the Western region, it is much larger than the population of the Grenfell region, and the Grey county population is much less geographically dispersed than either the Western or Grenfell region populations.

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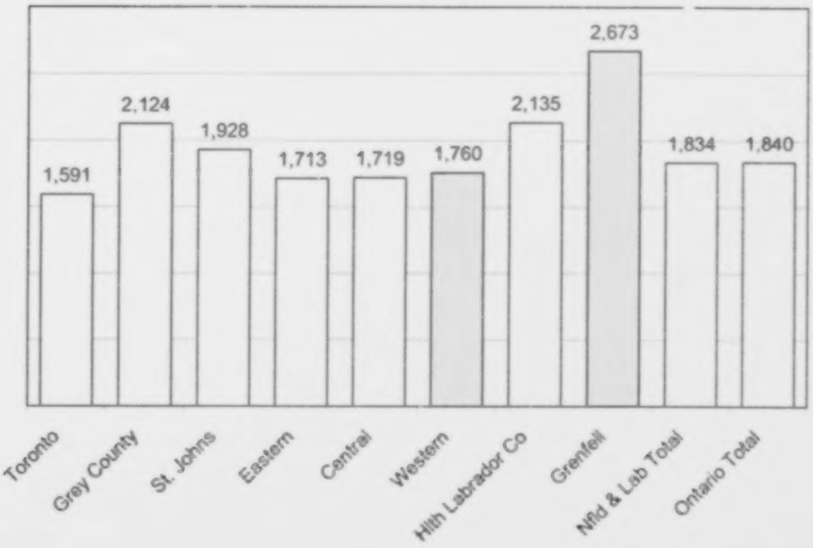
[30] The St. John's region is one of the few exceptions in Canada to this pattern. The populations in three other health regions in Newfoundland and Labrador (including the Western health region population) have lower acute care utilization rates than St. John's. This anomaly was previously identified in a review of hospital services provided by the Health Care Corporation of St. John's.

Exhibit 4.6 shows that the overall utilization rate of acute care in Ontario is slightly higher than the overall rate for Newfoundland and Labrador.

Exhibit 4.6
2001/02 Age/Gender Standardized Hospital Utilization per 10,000 Population for Nfld & Lab and Selected Ontario Regions



As expected, the utilization rate for Toronto is lower than that in any of the Newfoundland and Labrador health regions, but the Grey county utilization rate is higher than the utilization rate in all of the Newfoundland and Labrador health regions except Health Labrador Corporation and the Grenfell region.

Exhibit 4.4 (shown previously) showed that the utilization of hospital services by the Western region population was more than 20% above the provincial average for the following programs:

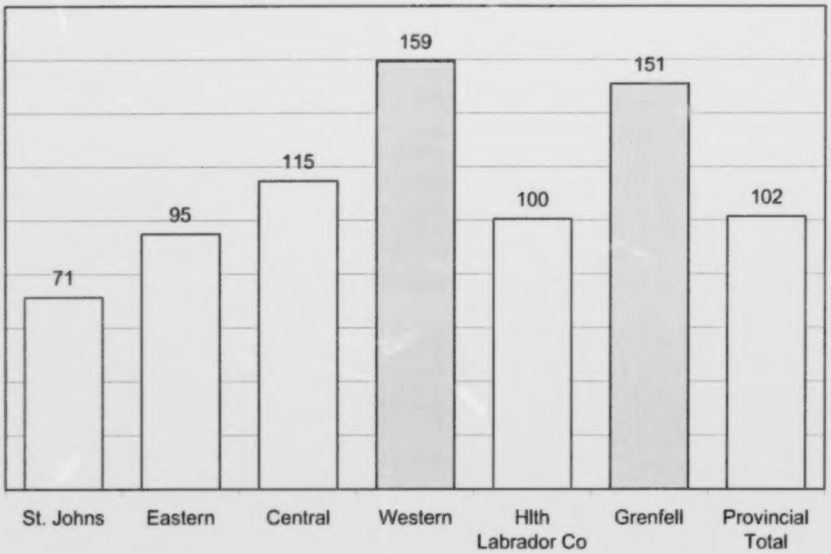
- Neurology (21% above provincial average)
- Dermatology (26% above)
- Nephrology (32% above, highest in province)
- Gynaecology (57% above, highest in province)
- Psychiatry (25% above, highest in province)

Utilization of hospital services by Western region residents was more than 20% below the provincial average for:

- Neurosurgery (40% below, lowest in province)
- Urology (40% below, lowest in province)
- Otolaryngology (22% below, lowest in province)
- Dental/Oral Surgery (24% below)
- Cardio-Thoracic Surgery (23% below, lowest in province)
- Gastro-Hepatobiliary (33% below)
- Plastic Surgery (27% below)

Exhibit 4.7 shows the rates of acute care hospital separations for gynaecology. Utilization by both Grenfell region and Western region residents is 50% above the provincial average and more than double the rate for St. John's residents. The recent CIHI report, "2004 Health Indicators" showed that the rate of surgery for hysterectomy for Western region residents was one of the highest in Canada.

Exhibit 4.7
2001/02 Age/Gender Standardized Hospital Utilization per 10,000 Population – Gynaecology



4.1.4 *Analysis of Avoidable Hospitalization Conditions*

Health services researchers have identified a set of hospitalization conditions that can be considered to be potentially avoidable, because early and consistent access to good primary care can prevent the condition or can manage the condition and reduce the severity of impact such that hospitalization is unlikely (or infrequent). The conditions considered to be potentially avoidable hospitalization conditions are:

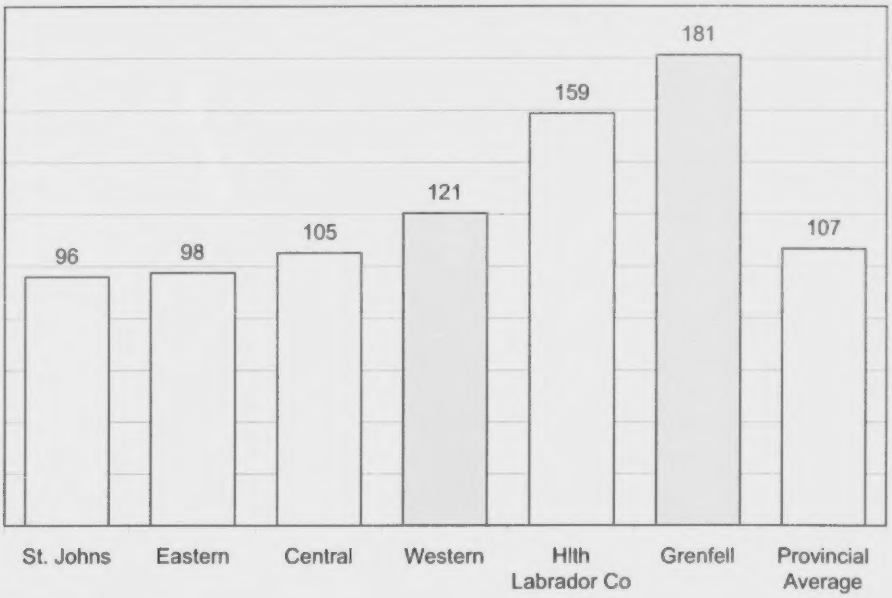
- Pneumonia
- Congestive Heart Failure
- Asthma
- Cellulitis
- Ulcer
- Pyleonephritis
- Diabetes
- Ruptured Appendix
- Hypertension
- Hypokalemia
- Immunizable Conditions
- Gangrene

Rate of avoidable hospitalizations for Western region residents is 20% higher than the rates for St. John's and Eastern region residents.

High rates of admissions for these conditions may signify the need to enhance the primary care system.

Exhibit 4.8 shows the 2001/02 rates of inpatient admission (per 10,000 population) for avoidable hospitalization conditions for the Newfoundland and Labrador health regions.

Exhibit 4.8
Avoidable Hospitalization Condition Inpatient Admissions per 10,000 Age/Gender Standardized Population (2001/02)



The highest rate of admission for potentially avoidable hospitalization conditions is for Grenfell region residents. The Western region rate is 20% higher than the rates for St. John's and Eastern region residents.

To assess the relative capacity of the primary care system in each region, we obtained physician payment data (both salary and fee-for-service) for primary care physicians located in each health region. The payment data was to be a surrogate for measures of distribution of primary care physician FTEs, since the FTE data was not available. Salary data was available for 2001/02. Fee-for-service data was not available for 2001/02 but the Department of Health provided fee-for-service payment data by health region for 2003/04.

Exhibit 4.9 shows the range of primary care physician payments per population by health region. While the range of per capita primary care physician payments is narrow, the highest per capita payment is in the Western region, and the lowest in Grenfell region.[31] This would suggest, the Western

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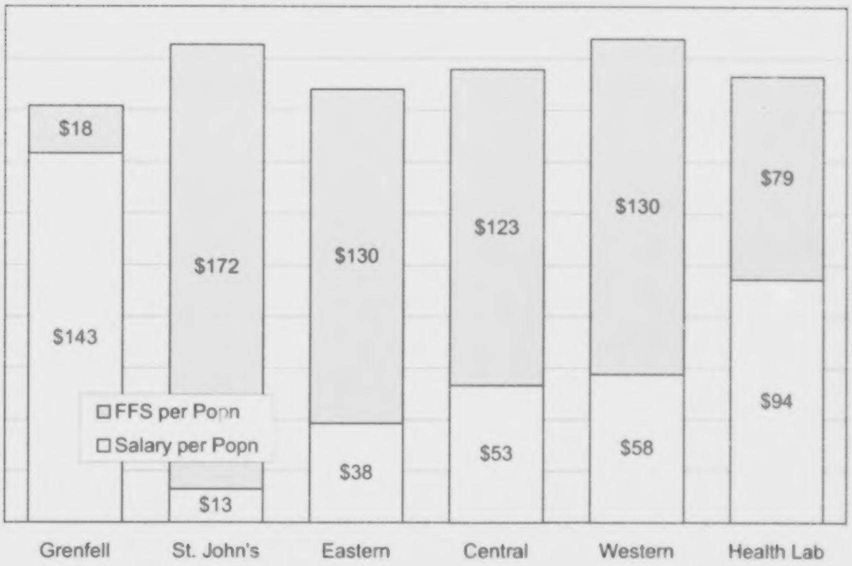
[31] Because the FFS data is more current than the salary data, it is inflated relative to the salary data. Use of un-inflated 2001/02 FFS data (not available) would further reduce the variation in payments between regions and bring Western closer to the Grenfell payment per population number.

Region has access to and uses primary medical care comparably to other regions in the province.

Exhibit 4.9
Primary Care Physician Payments per Population
(Salary [2001/02] and Fee For Service [2003/04])



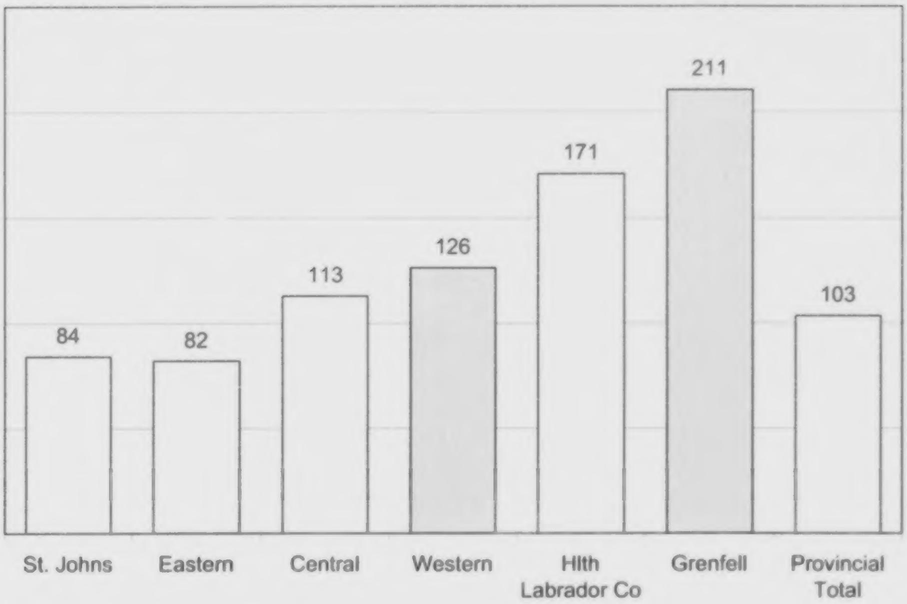
4.1.5 Analysis of 'MNRH' Admissions

CIHI identifies a subset of Case Mix Groups (CMGs) as "May Not Require Hospitalization" (MNRH). These are CMGs where, based on experience across Canada, CIHI's physician advisors have determined that care can usually (but not always) be provided on an ambulatory basis. High MNRH rates may indicate opportunities to expand day care surgery and/or ambulatory clinics.

The rate of MNRH admissions for the population of the Western Region is 20% above the provincial average.

Exhibit 4.10 shows the age/gender-standardized rate of MNRH admissions per 10,000 population for the residents of each Newfoundland and Labrador health region. The Western MNRH rate is the 3rd highest, 20% above the provincial average. Internal WHCC reports show that 10.5% of inpatient cases are considered to be MNRH cases. Interviewees reported, and it was confirmed by concurrent review data and provincial bed studies, that it was not unusual for patients to be admitted solely to access diagnostic services and thereby bypass the ambulatory waiting list.

Exhibit 4.10
MNRH Inpatient Cases per 10,000 Population by Region (2001/02)



4.1.6 *Opportunities to Reduce Inpatient/SDS Hospital Use*

We believe that it should be possible for the WHCC to reduce admission of avoidable hospitalization condition patients and MNRH patients to the provincial average rate (107 AHC admissions and 103 MNRH admissions per 10,000 population). The availability of primary medical care, measured in terms of payments per population, is highest in the province. The planned provincial primary care renewal initiatives (as will be implemented in Bonne Bay as part of the federally funded pilot projects) should further support reduce reliance on inpatient hospital care.

The impact of reduction of MNRH rates is incorporated later in this report in the identification of opportunities to shift from inpatient to ambulatory care in the clinical efficiency analysis.

If the WHCC rate of admission of potentially avoidable hospitalization conditions was reduced from 126 to 103 admissions per 10,000 population, 116 annual admissions could be avoided at an annual direct cost saving of $337,000.

Exhibit 4.11
Calculation of Potential Direct Savings from Reduction in WHCC Potentially Avoidable Hospitalizations

WHCC AHC Utilization	Acute Care Utilization Rate	Estimated Cases
Current	121	998
Target	107	883
Change	- 14	- 116
Average RIW per Case Saved		1.19
Weighted Case Reduction		- 137
Direct Cost per Weighted Case		$ 2,450
Estimated Direct Savings		-$ 336,781

Both Grenfell and WHCC have utilization rates for gynaecology services (50% higher than in other regions in Newfoundland and Labrador and at least 30% higher than the next highest region). The recent CIHI Health Care in Canada publication reported that the hysterectomy rate in the Western region was 632 cases per 100,000 population, 63% higher than the national average rate. The Medical Advisory Committees in both regions should coordinate reviews of the appropriateness of utilization of acute care gynaecology services and opportunities to change practices through expanded use of standardized protocols. If gynaecology utilization rates were reduced to a rate 25% above the provincial average, there would be a reduction in direct costs for WHCC of $213,000 and a reduction in direct cost for GRHSB of $33,000.

Exhibit 4.12
Calculation of Potential Direct Savings from Reduction in WHCC Gynaecology Utilization

WHCC Gynaecology Utilization	Acute Care Utilization Rate	Estimated Cases
Current	159	1,312
Target	128	1,056
Change	- 31	- 256
Average RIW per Case Saved		0.34
Weighted Case Reduction		- 87
Direct Cost per Weighted Case		$ 2,450
Estimated Direct Savings		-$ 213,066

Recommendations:

It is recommended that:

(74) **The WHCC Board should establish a target rate for admission of potentially avoidable hospitalization conditions of 103 admissions per 10,000 population.**

(75) **The WHCC MAC should coordinate a review of appropriateness of acute care gynaecology services and expand the use of standardized protocols.**

4.2 Population Dependence on Regions' Programs

4.2.1 Market Share of Services Used by Populations in Region

90% of all of the acute care inpatient hospitalizations for Western region residents in 2001/02 were provided by hospitals located within the region.

Exhibit 4.13 shows the percent of total acute care inpatient hospitalizations for the residents of the Western health region provided by hospitals located in the Grenfell, Western, or St. John's health regions. The percentages are based on 2001/02 data and are shown by program area for primary, secondary, and tertiary/quaternary hospitalizations.[32]

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[32] Inpatient cases have been categorized as primary, secondary, or tertiary/quaternary, using the HayGroup Level of Care methodology. Cases are assigned to a level of care based on their CMG, Plx level, and patient age. The level of care is established based on factors such as average case cost, the number of hospitals that are capable of providing the care, and the distance that patients travel to access the care.

Exhibit 4.13
Percent of Inpatient Hospitalizations of WHCC Residents Provided by Hospitals in Grenfell, Western, and St. John's Regions (2001/02)

Program Cluster	% Cases Treated in Grenfell Region Hospitals				% Cases Treated in Western Region Hospitals				% Cases Treated in St. John's Region Hospitals			
	Prim.	Sec.	Tert./ Quat.	All	Prim.	Sec.	Tert./ Quat.	All	Prim.	Sec.	Tert./ Quat.	All
Cardiology	0%	0%	0%	0%	98%	90%	67%	95%	1%	10%	33%	4%
Obstetrics	0%	1%	0%	1%	97%	91%	0%	95%	2%	8%	0%	3%
General Surgery	2%	1%	1%	1%	94%	90%	73%	90%	3%	9%	26%	8%
Gastro/Hepatobiliary	1%	0%	0%	1%	96%	89%	0%	95%	2%	9%	100%	3%
Neonatology	0%	0%	0%	0%	97%	60%	11%	93%	2%	40%	89%	7%
Pulmonary	0%	0%	0%	0%	98%	98%	100%	98%	1%	2%	0%	1%
Psychiatry	0%	0%	0%	0%	98%	88%	83%	91%	2%	12%	13%	8%
General Medicine	0%	0%	0%	0%	98%	95%	83%	97%	1%	5%	17%	3%
Urology	0%	1%	0%	0%	95%	71%	25%	87%	3%	20%	75%	9%
Orthopaedics	0%	1%	0%	1%	97%	91%	76%	90%	3%	7%	24%	9%
Trauma	2%	0%	0%	0%	94%	89%	63%	88%	2%	9%	27%	9%
Gynaecology	0%	1%	0%	0%	96%	92%	60%	94%	3%	7%	40%	5%
Neurology	2%	0%	0%	1%	93%	93%	67%	93%	4%	7%	17%	6%
Oncology	0%	1%	0%	1%	0%	80%	30%	76%	0%	19%	70%	23%
Otolaryngology	0%	0%	0%	0%	94%	81%	55%	87%	5%	19%	45%	12%
Endocrinology	1%	0%	0%	0%	94%	68%	100%	90%	3%	32%	0%	8%
Cardio/ Thoracic	0%	0%	0%	0%	0%	64%	10%	17%	0%	36%	90%	83%
Vascular Surgery	0%	0%	0%	0%	0%	89%	80%	86%	0%	11%	17%	13%
Nephrology	0%	0%	0%	0%	98%	76%	100%	89%	2%	22%	0%	10%
Haematology	0%	0%	0%	0%	98%	88%	0%	94%	2%	12%	0%	6%
Ophthalmology	0%	0%	0%	0%	100%	66%	33%	65%	0%	34%	67%	34%
Rheumatology	0%	0%	0%	0%	100%	80%	100%	84%	0%	20%	0%	16%
Not Generally Hosp.	0%	0%	0%	0%	0%	71%	0%	71%	0%	29%	0%	29%
Plastic Surgery	0%	0%	0%	0%	0%	73%	25%	67%	0%	27%	75%	31%
Dermatology	0%	0%	0%	0%	0%	87%	100%	88%	0%	13%	0%	13%
Neurosurgery	0%	14%	0%	3%	0%	57%	3%	13%	0%	29%	97%	84%
Rehabilitation	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%
Ungroupable	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%
Dental/Oral Surgery	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%
Grand Total	1%	0%	0%	0%	97%	87%	43%	90%	2%	12%	55%	9%

90% of all of the acute care inpatient hospitalizations for Western region residents in 2001/02 were provided by hospitals located within the region. St. John's hospitals provided a further 9% of the total inpatient hospitalizations of Western region residents. This "market share" varied by level of care:

- 97% of Primary level hospitalizations of Western region residents were provided in WHCC hospitals (2% in St. John's)
- 87% of Secondary level hospitalizations of Western region residents were provided in WHCC hospitals (12% in St. John's)

- 43% of Tertiary/ Quaternary level hospitalizations of Western region residents were provided in WHCC hospitals (55% in St. John's hospitals)

The WHCC hospital market share of inpatient hospitalizations ranged from a low of 13% for neurosurgery and 17% for cardio-thoracic, to more than 95% for pulmonary and general medicine.

4.2.2 Referral of Patients to Centres Outside Region

Exhibit 4.14 shows the number of residents of the Western region who were hospitalized as inpatients in hospitals outside the Western region in 2001/02, by program. The table is sorted by descending volume of patients. The largest numbers of residents leaving the region for inpatient care were cardio/thoracic, general surgery, and oncology patients hospitalized in St. John's hospitals.

Exhibit 4.14
Volume of Western Region Residents Hospitalized as Inpatients in Other Health Regions by Program (2001/02)

Program	Admissions in Other Regions		
	St. John's	Other	Total
Cardio/ Thoracic	179	0	179
General Surgery	77	17	94
Oncology	80	4	84
Urology	44	16	60
Psychiatry	56	3	59
Trauma	40	14	54
Cardiology	46	8	54
Neonatology	48	5	53
Orthopaedics	39	6	45
Obstetrics	34	8	42
Gastro/Hepatobiliary	23	17	40
Otolaryngology	37	1	38
Neurosurgery	32	1	33
Neurology	22	5	27
Endocrinology	19	6	25
Ophthalmology	25	0	25
Gynaecology	21	3	24
General Medicine	17	2	19
Vascular Surgery	16	1	17
Pulmonary	9	5	14
Not Generally Hosp.	13	0	13
Nephrology	12	1	13
Plastic Surgery	13	0	13
Rheumatology	8	0	8
Haematology	6	0	6
Dermatology	5	0	5
Grand Total	921	123	1,044

4.2.3 Use of Services by Patients from Outside Region

In 2001/02 there were 531 non-residents of the Western health region admitted as inpatients in WHCC hospitals. Half (279) of these inpatients were residents of the Grenfell region, 194 were Central region residents, and 58 came from elsewhere.

The highest volume programs for non-residents were cardiology, gastro/hepatobiliary, orthopaedics, and trauma.

Exhibit 4.15
Inpatient Hospitalizations of Non-Residents by Program (2001/02)

Program	Patients from Other Regions			
	Grenfell	Central	Other	Total
Cardiology	49	6	13	68
Gastro/Hepatobiliary	41	7	3	51
Orthopaedics	14	23	6	43
Trauma	15	20	7	42
Obstetrics	8	28	1	37
General Surgery	11	24	0	35
Neonatology	9	24	1	34
General Medicine	17	11	6	34
Pulmonary	20	7	3	30
Psychiatry	21	3	5	29
Urology	21	0	3	24
Gynaecology	10	11	0	21
Otolaryngology	6	13	2	21
Neurology	9	5	2	16
Oncology	2	5	2	9
Endocrinology	4	1	1	6
Vascular Surgery	4	1	0	5
Nephrology	4	0	1	5
Rheumatology	2	3	0	5
Dermatology	3	1	0	4
Ophthalmology	2	1	1	4
Haematology	2	0	1	3
Cardio/ Thoracic	2	0	0	2
Not Generally Hosp.	2	0	0	2
Plastic Surgery	1	0	0	1
Grand Total	279	194	58	531

4.3 Review of Hospital Activity

Exhibit 4.16 shows the 2001/02 inpatient and SDS activity volume for the hospitals within WHCC. The average inpatient length of stay for the hospitals in the region was 7.6 days. 71% of inpatient admissions, 73% of inpatient days, and 60% of SDS cases were provided in Corner Brook. In 2001/02, ALC days were under-reported at 6.6% of total inpatient days.

Exhibit 4.16
Western HCC Hospital Activity in 2001/02[33]

Hospital	IP Cases	IP Days	Avg. LOS	% ALC	SDS Cases
Western Memorial, Corner Brook	7,357	57,607	7.8	5.3%	2,235
Sir Thomas Roddick Hospital	1,573	11,397	7.2	10.2%	1,196
Charles L. Legrow HC	662	3,932	5.9	7.1%	264
Bonne Bay HC, Norris Point	189	2,201	11.6	20.5%	0
R Guinchard HCC, Port Saunder	401	1,852	4.6	8.2%	0
Calder Health Centre, Burgeo	112	804	7.2	9.5%	0
Grand Total	10,294	77,793	7.6	6.6%	3,695

The 2001/02 activity volume for each of the WHCC hospitals is shown in Exhibits 4.17 through 4.22.

Exhibit 4.17
WHCC Hospital Activity – Western Memorial, Corner Brook (2001/02)

Program Cluster	IP Cases	IP Days	Avg. LOS	% ALC	SDS Cases
General Surgery	711	7,445	10.5	5.1%	338
Psychiatry	482	6,895	14.3	4.6%	52
Cardiology	699	6,457	9.2	2.8%	1
General Medicine	374	4,319	11.5	11.8%	5
Pulmonary	410	3,703	9.0	7.9%	0
Trauma	389	3,445	8.9	9.1%	24
Gastro/Hepatobiliary	563	3,170	5.6	3.8%	15
Orthopaedics	404	2,829	7.0	4.3%	289
Obstetrics	781	2,784	3.6	0.0%	13
Neurology	250	2,429	9.7	18.1%	0
Oncology	202	2,090	10.3	1.2%	12
Urology	340	2,024	6.0	2.3%	84
Neonatology	571	1,892	3.3	0.3%	0
Vascular Surgery	88	1,826	20.8	7.6%	11
Gynaecology	374	1,746	4.7	0.0%	582
Endocrinology	131	1,173	9.0	0.0%	0
Nephrology	83	1,116	13.4	11.5%	14
Cardio/ Thoracic	38	599	15.8	3.7%	1
Haematology	65	498	7.7	0.0%	0
Otolaryngology	261	414	1.6	0.0%	155
Rheumatology	35	205	5.9	0.0%	0
Plastic Surgery	25	149	6.0	0.0%	5
Dermatology	22	133	6.0	0.0%	8
Neurosurgery	5	88	17.6	0.0%	47
Ophthalmology	31	88	2.8	0.0%	298
Not Generally Hosp.	19	53	2.8	0.0%	1
Rehabilitation	3	30	10.0	0.0%	0
Dental/Oral Surgery	1	7	7.0	0.0%	280
Grand Total	7,357	57,607	7.8	5.3%	2,235

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[33] In 2001/02 ambulatory surgery (SDS) cases at Western Memorial were under-reported.

Exhibit 4.18
WHCC Hospital Activity – Sir Thomas Roddick Hospital (2001/02)

Program Cluster	IP Cases	IP Days	Avg. LOS	% ALC	SDS Cases
General Medicine	148	2,010	13.6	20.2%	1
Cardiology	212	1,803	8.5	14.0%	0
Pulmonary	169	1,472	8.7	5.2%	0
General Surgery	174	791	4.5	0.0%	218
Psychiatry	89	772	8.7	0.4%	0
Gastro/Hepatobiliary	128	745	5.8	0.0%	320
Obstetrics	179	589	3.3	1.2%	1
Neurology	44	517	11.8	30.2%	0
Endocrinology	37	442	11.9	2.3%	1
Oncology	32	401	12.5	7.5%	16
Neonatology	112	359	3.2	3.3%	0
Urology	55	337	6.1	8.9%	49
Rehabilitation	11	267	24.3	9.7%	0
Rheumatology	3	158	52.7	83.5%	0
Gynaecology	47	146	3.1	0.0%	299
Orthopaedics	19	146	7.7	16.4%	11
Trauma	20	105	5.3	0.0%	3
Haematology	17	96	5.6	0.0%	2
Dermatology	6	53	8.8	0.0%	31
Ophthalmology	22	44	2.0	0.0%	164
Nephrology	8	34	4.3	0.0%	0
Otolaryngology	10	33	3.3	0.0%	5
Vascular Surgery	14	32	2.3	0.0%	4
Cardio/ Thoracic	1	16	16.0	0.0%	0
Plastic Surgery	5	13	2.6	0.0%	3
Not Generally Hosp.	10	13	1.3	0.0%	43
Ungroupable	1	3	3.0	0.0%	0
Dental/Oral Surgery	0	0			24
Neurosurgery	0	0			1
Grand Total	1,573	11,397	7.2	10.2%	,196

Exhibit 4.19
WHCC Hospital Activity – Charles L. LeGrow HC (2001/02)

Program Cluster	IP Cases	IP Days	Avg. LOS	% ALC	SDS Cases
Cardiology	138	1,013	7.3	1.8%	0
Pulmonary	63	572	9.1	32.5%	0
General Medicine	63	431	6.8	4.4%	0
Gastro/Hepatobiliary	100	319	3.2	0.0%	89
Rehabilitation	13	275	21.2	0.0%	0
Neurology	35	271	7.7	14.0%	0
Endocrinology	25	160	6.4	0.0%	0
Oncology	22	140	6.4	0.0%	2
Psychiatry	29	127	4.4	7.9%	0
Haematology	15	98	6.5	0.0%	0
Obstetrics	39	92	2.4	0.0%	1
Urology	19	89	4.7	0.0%	29
Trauma	17	74	4.4	13.5%	1
Neonatology	23	59	2.6	0.0%	0
Nephrology	11	48	4.4	0.0%	0
Orthopaedics	14	47	3.4	0.0%	8
General Surgery	9	37	4.1	0.0%	78
Otolaryngology	8	21	2.6	0.0%	17
Rheumatology	3	13	4.3	0.0%	0
Vascular Surgery	3	12	4.0	0.0%	1
Gynaecology	7	12	1.7	0.0%	10
Dermatology	2	12	6.0	0.0%	16
Not Generally Hosp.	4	10	2.5	0.0%	7
Ophthalmology	0	0			5
Grand Total	662	3,932	5.9	7.1%	264

Exhibit 4.20
WHCC Hospital Activity – Bonne Bay HC, Norris Point (2001/02)

Program Cluster	IP Cases	IP Days	Avg. LOS	% ALC	SDS Cases
General Medicine	41	654	16.0	1.4%	0
Cardiology	41	505	12.3	36.4%	0
Psychiatry	9	320	35.6	77.5%	0
Neurology	13	160	12.3	0.0%	0
Pulmonary	23	122	5.3	0.0%	0
Vascular Surgery	2	89	44.5	12.4%	0
Oncology	4	74	18.5	0.0%	0
Gastro/Hepatobiliary	18	57	3.2	0.0%	0
Endocrinology	8	35	4.4	0.0%	0
Orthopaedics	4	33	8.3	0.0%	0
Not Generally Hosp.	1	31	31.0	0.0%	0
Nephrology	3	29	9.7	0.0%	0
Rehabilitation	3	22	7.3	0.0%	0
Dermatology	4	20	5.0	0.0%	0
Rheumatology	3	13	4.3	0.0%	0
Otolaryngology	4	12	3.0	0.0%	0
Trauma	2	10	5.0	0.0%	0
Urology	3	6	2.0	0.0%	0
Obstetrics	2	6	3.0	0.0%	0
Haematology	1	3	3.0	0.0%	0
Grand Total	189	2,201	11.6	20.5%	0

Exhibit 4.21
WHCC Hospital Activity – R. Guinchard HCC, Port Saunders (2001/02)

Program Cluster	IP Cases	IP Days	Avg. LOS	% ALC	SDS Cases
Cardiology	105	528	5.0	3.4%	0
General Medicine	45	345	7.7	38.8%	0
Pulmonary	56	215	3.8	0.0%	0
Gastro/Hepatobiliary	68	189	2.8	0.0%	0
Psychiatry	31	149	4.8	0.0%	0
Oncology	14	118	8.4	0.0%	0
Neurology	24	91	3.8	0.0%	0
Endocrinology	14	86	6.1	0.0%	0
Orthopaedics	7	41	5.9	0.0%	0
Urology	14	29	2.1	0.0%	0
Rheumatology	4	20	5.0	0.0%	0
Dermatology	4	14	3.5	0.0%	0
Trauma	9	13	1.4	0.0%	0
Otolaryngology	2	5	2.5	0.0%	0
Nephrology	1	4	4.0	0.0%	0
Vascular Surgery	1	2	2.0	0.0%	0
Gynaecology	1	2	2.0	0.0%	0
Neonatology	1	1	1.0	0.0%	0
Grand Total	401	1,852	4.6	8.2%	0

Exhibit 4.22
WHCC Hospital Activity – Calder Health Centre, Burgeo (2001/02)

Program Cluster	IP Cases	IP Days	Avg. LOS	% ALC	SDS Cases
General Medicine	18	247	13.7	8.1%	0
Gastro/Hepatobiliary	19	137	7.2	0.0%	0
Cardiology	22	118	5.4	0.0%	0
Oncology	2	91	45.5	61.5%	0
Pulmonary	10	51	5.1	0.0%	0
Endocrinology	7	43	6.1	0.0%	0
Neurology	10	32	3.2	0.0%	0
Nephrology	4	22	5.5	0.0%	0
Psychiatry	7	19	2.7	0.0%	0
Urology	4	17	4.3	0.0%	0
General Surgery	1	9	9.0	0.0%	0
Not Generally Hosp.	1	4	4.0	0.0%	0
Orthopaedics	2	4	2.0	0.0%	0
Dermatology	1	4	4.0	0.0%	0
Otolaryngology	1	3	3.0	0.0%	0
Haematology	3	3	1.0	0.0%	0
Grand Total	112	804	7.2	9.5%	0

4.3.1 Beds and Occupancy by Site

The majority of the acute care beds, and the greatest challenge with excessive occupancy of medical beds, is at the Western Memorial Regional Hospital in Corner Brook. For 2003/04, the overall occupancy of acute care beds (excluding nursery) by site was:

- WMRH – 96%
- STRH – 84%
- CLLHC – 80%
- BBH – 56%
- RGHC – 68%
- CHC – 57%

Exhibit 4.23 shows the trend for acute care beds (excluding bassinets) and occupancy by service at WMRH. The reported bed numbers are the actual beds available, taking into account seasonal reductions in staffed beds. Overall occupancy in 2003/04 was 93%[34], with medical service occupancy of 126%. The medical service occupancy has been above 115% for each of the past 6 years.

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[34] The occupancy excludes 8 ICU beds and 12 ALC beds.

Exhibit 4.23
Western Memorial Hospital Beds and Occupancy by Service[35]

Service	1998/99		1999/00		2000/01		2001/02		2002/03		2003/04	
	Beds	% Occ.	Beds	% Occ.	Beds	% Occ.	Beds	% Occ.	Beds	% Occ.	Beds	% Occ.
Medicine	52	132%	54	124%	52	124%	60	116%	56	129%	58	126%
Surgery	75	69%	77	66%	66	75%	56	83%	55	80%	54	79%
Obstetrics	19	45%	18	47%	11	63%	11	69%	11	57%	9	68%
Paediatrics	16	67%	16	68%	13	70%	12	79%	12	68%	12	62%
Psychiatry	23	82%	23	72%	21	73%	21	75%	21	82%	21	88%
Palliation	-		-		-		-		9	40%	8	44%
Total (excl. ICU & 12 bed ALC unit)	184	86%	188	82%	163	89%	159	93%	164	92%	162	93%

In 2002/03, surgical service occupancy was 79% and psychiatry service occupancy was 88%.

4.3.2 Level of Care by Site

Exhibit 4.24 shows the distribution of inpatient cases hospitalized in WHCC hospitals by level of care. Over half of WHCC hospital inpatients (60.5%) were primary level patients. Less than t 3% of WHCC hospital inpatients were tertiary/quaternary patients.

Exhibit 4.24
Distribution of WHCC Hospital
Inpatients by Level of Care by Hospital (2001/02)

Hospital	% Distribution of Inpatient Cases by Level of Care		
	Primary	Secondary	Tertiary/ Quaternary
Bonne Bay HC, Norris Point	63.5%	36.5%	0.0%
Calder Health Centre, Burgeo	70.5%	29.5%	0.0%
Charles L. Legrow HC	66.8%	33.1%	0.2%
R Guinchard HCC, Port Saunder	69.8%	30.2%	0.0%
Sir Thomas Roddick Hospital	64.0%	34.8%	1.1%
Western Memorial, Corner Brook	58.5%	38.0%	3.4%
Western Total	60.5%	36.8%	2.6%

Exhibit 4.25 shows similar information expressed in terms of inpatient weighted cases. This shows the approximate allocation of inpatient costs by level of care. 51% of WHCC

inpatient resources were used for secondary patients, 38% for primary patients, and 11% for tertiary/quaternary patients.

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[35] Occupancy data from WMRH Occupancy Rate by Service Report, generated June 26, 2003.

Exhibit 4.25
Distribution of WHCC Hospital Inpatient Weighted Cases by Level of Care by Hospital (2001/02)

Hospital	% Distribution of Inpatient RIW Weighted Cases by Level of Care		
	Primary	Secondary	Tertiary/ Quaternary
Western Memorial, Corner Brook	34.8%	51.2%	14.0%
Sir Thomas Roddick Hospital	46.3%	49.6%	4.0%
Charles L. Legrow HC	50.2%	49.0%	0.8%
R Guinchard HCC, Port Saunder	57.6%	42.4%	0.0%
Bonne Bay HC, Norris Point	41.4%	58.6%	0.0%
Calder Health Centre, Burgeo	53.8%	46.2%	0.0%
Western Total	38.1%	50.8%	11.1%

4.3.3 Admission Entry Code by Site

Exhibit 4.26 shows the distribution of inpatient admissions in WHCC hospitals in 2001/02 by source of entry. 39% of the admissions were direct admissions (i.e. admissions from home). One half of the inpatients were admitted via the emergency department.

Exhibit 4.26
Distribution of Inpatient Admissions by Entry Code (2001/02)

Hospital	Entry Code					Total IP Cases
	Direct	ED	From Clinic	From Day Surg	New born	
Bonne Bay HC, Norris Point	48%	43%	8%	0%	0%	189
Calder Health Centre, Burgeo	18%	78%	4%	0%	0%	112
Charles L. Legrow HC	39%	58%	0%	0%	3%	662
R Guinchard HCC, Port Saunder	26%	59%	15%	0%	0%	401
Sir Thomas Roddick Hospital	23%	62%	6%	1%	7%	1,573
Western Memorial, Corner Brook	43%	46%	2%	1%	7%	7,357
Grand Total	39%	50%	3%	1%	7%	10,294

4.3.4 ICU Cases & Days by Site

CIHI inpatient discharge records include identification of hours and days of care spent in a "special care unit" (SCU). SCUs include neonatal intensive care units, ICUs, and CCUs.

Exhibit 4.27 shows the volume of SCU cases and days in 2001/02 for all Newfoundland and Labrador hospitals that reported any SCU activity.

Exhibit 4.27
SCU Activity in Newfoundland and Labrador Hospitals in 2001/02

Hospital	SCU Cases	SCU Days	ALOS in SCU	% of Cases with SCU	% of Days in SCU
Health Sciences Centre, St. John's	2,447	14,766	6.0	11.2%	6.6%
Janeway Child Health Centre, St. John's	410	6,514	15.9	7.8%	24.0%
Western Memorial, Corner Brook	611	3,165	5.2	8.3%	5.5%
James Paton Memorial Hospital, Gander	405	2,964	7.3	11.2%	11.0%
Central Newfoundland Regional Health Centre	536	2,544	4.7	11.3%	7.3%
Carbonear General Hospital	405	1,413	3.5	14.3%	6.2%
Curtis Memorial St. Anthony	424	1,051	2.5	18.2%	7.2%
Dr. G. B. Cross Memorial Hospital, Clarenville	158	668	4.2	12.0%	8.2%
Burin Peninsula Health Care Centre	138	469	3.4	12.1%	6.8%
Sir Thomas Roddick Hospital	183	360	2.0	11.6%	3.2%
Charles L. Legrow HC	84	174	2.1	12.7%	4.4%
Labrador HC, Happy Valley-Goose Bay	55	142	2.6	3.3%	2.2%
Captain Wm Jackman Memorial Hospital	63	141	2.2	8.5%	5.5%
Notre Dame Bay Memorial HC, Twillingate	1	2	1.8	0.2%	0.0%

In the Western region, SCU care was provided at Western Memorial, Sir Thomas Roddick, and Charles LeGrow.

Exhibit 4.28 shows the distribution of SCU days in WHCC hospitals by program area. 40% of all SCU days are for cardiology and 30% of cardiology inpatients have at least one day of stay in an SCU bed. Two thirds of cardio-thoracic patients spend time in SCU and their average SCU stay is 11.9 days (approximately 50% of their total stay).

Exhibit 4.28
Distribution of Western Region SCU Activity by Program
(2001/02)

Program	SCU Cases	SCU Days	ALOS in SCU	% of Cases w/ SCU	% of Days in SCU
Cardiology	359	1,478	4.1	29.5%	14.2%
General Surgery	111	616	5.5	12.4%	7.4%
Cardio/ Thoracic	26	310	11.9	66.7%	50.5%
Pulmonary	60	304	5.1	8.2%	5.0%
Vascular Surgery	46	241	5.2	42.6%	12.3%
Trauma	50	200	4.0	11.4%	5.5%
Gastro/Hepatobiliary	34	105	3.1	3.8%	2.3%
Nephrology	21	94	4.5	19.1%	7.5%
Neurology	34	76	2.2	9.0%	2.2%
General Medicine	31	72	2.3	4.5%	0.9%
Oncology	14	43	3.1	5.1%	1.5%
Psychiatry	31	32	1.0	4.8%	0.4%
Gynaecology	5	27	5.5	1.2%	1.4%
Endocrinology	14	26	1.9	6.3%	1.4%
Neonatology	7	17	2.4	1.0%	0.7%
Orthopaedics	11	16	1.4	2.4%	0.5%
Haematology	4	12	2.9	4.0%	1.7%
Urology	7	8	1.2	1.6%	0.3%
Rheumatology	1	6	5.8	2.1%	1.4%
Obstetrics	5	5	0.9	0.5%	0.1%
Dermatology	2	4	2.2	5.1%	1.8%
Plastic Surgery	2	4	2.0	6.7%	2.5%
Rehabilitation	1	2	1.7	3.3%	0.3%
Neurosurgery	1	1	1.2	20.0%	1.4%
Dental/Oral Surgery	0	0		0.0%	0.0%
Otolaryngology	1	0	0.0	0.3%	0.0%
Not Generally Hosp.	0	0		0.0%	0.0%
Ungroupable	0	0		0.0%	0.0%
Ophthalmology	0	0		0.0%	0.0%
Grand Total	878	3,699	4.2	8.5%	4.8%

4.3.5 Discharge Destinations and ALC Days

Combining ALC day data with discharge disposition records can assist in identification of barriers to access of post-acute care. CIHI records require that patients who will be discharged or transferred to a health care facility (or home with home support) have a record of this post-acute care on their acute care discharge abstract. If large volumes of ALC days are recorded for patients discharged to a particular discharge disposition, then this may indicate that either lack of capacity or processing delays are causing patients to be backlogged in acute care. Because ALC status was underreported in 2001/02, the analyses of CIHI data will not identify the absolute volume of discharge delays, but the data can be used to identify the placement options that are most associated with delays. For fiscal year 2002/03 reported ALC days for WHCC increased to 10.5% of all days, and to 16.3% of all days in 2003/04.

Exhibit 4.29 shows the distribution of Western Region residents who were hospitalized in 2001/02 by discharge disposition and the ALC activity associated with each placement option.

Exhibit 4.29
Distribution of 2001/02 Inpatient Cases for Western Region Residents (Excluding Stillbirths) by Discharge Disposition, with Associated ALC Activity

Discharge Disposition	IP Cases	% of IP Cases	Total IP Days	Avg. LOS	ALC Cases	% ALC Cases	ALC Days	% of All ALC Days	% of Stay as ALC	ALC LOS per ALC Case
Died	401	3.8%	8,104	20.2	14	3.5%	509	9.8%	6.3%	36.4
Home	9,099	85.1%	58,942	6.5	64	0.7%	1,529	29.3%	2.6%	23.9
Home with Support	309	2.9%	4,206	13.6	10	3.2%	99	1.9%	2.4%	9.9
Signed Out	74	0.7%	232	3.1	0	0.0%	0	0.0%	0.0%	
Xfr to LTC facility	212	2.0%	8,103	38.2	63	29.7%	2,953	56.7%	36.4%	46.9
Xfr to Other	24	0.2%	265	11.0	2	8.3%	39	0.7%	14.7%	19.5
Xfr to Other IP facility	573	5.4%	6,564	11.5	6	1.0%	83	1.6%	1.3%	13.8
Grand Total	10,692	100.0%	86,416	8.1	159	1.5%	5,212	100.0%	6.0%	32.8

85.1% of hospitalized Western region residents were discharged home with no documented home support and a further 2.9% were discharged home with home support. 5.4% of hospitalized residents were transferred to another (acute) inpatient facility.

While only 2.0% of inpatients were discharged to long-term care, these patients accounted for 56.7% of all ALC days. Almost 30% of patients discharged to long-term care were designated as ALC in acute care, and these patients waited an average of 47 days in acute care before moving to long-term care.

Less than 1% of the patients discharged home spent any time as ALC, but the patients who were ALC spent more than 3 weeks waiting for discharge, and accounted for 30% of the total ALC days for region residents.

The 5,212 reported ALC days were 6% of total inpatient days and are equivalent to 14.3 beds (at 100% occupancy). Use of acute care beds for patients waiting for placement contributed to high occupancy rates, particularly for medical beds in

Corner Brook. Exhibit 4.30 shows discharge disposition and ALC information for patients discharged from Western Memorial Hospital in 2001/02. Enhanced access to long-term care and home support would reduce ALC levels and reduce occupancy rates to more reasonable levels.

Exhibit 4.30
Distribution of 2001/02 Western Memorial Hospital Inpatient Cases (Excluding Stillbirths) by Discharge Disposition, with Associated ALC Activity

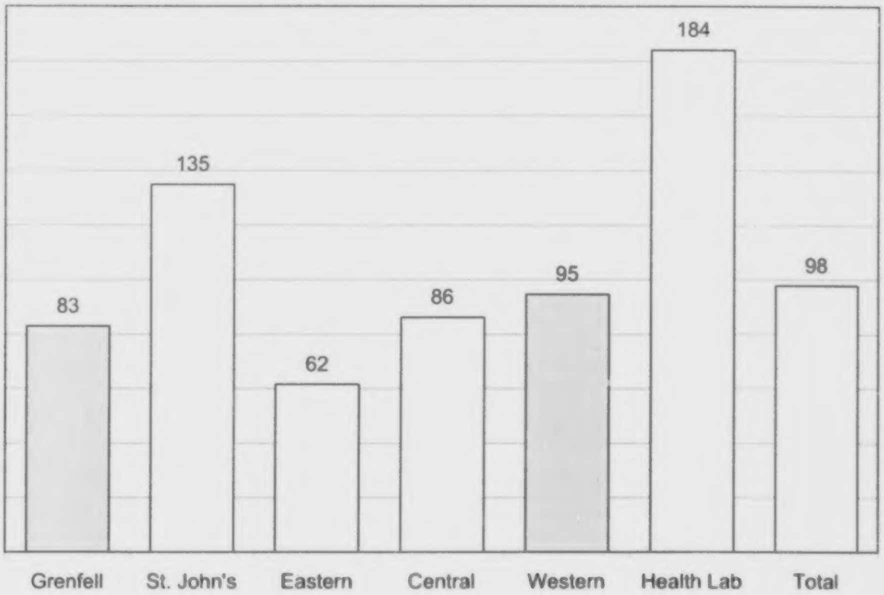
Discharge Disposition	IP Cases	% of IP Cases	Total IP Days	Avg. LOS	ALC Cases	% ALC Cases	ALC Days	% of All ALC Days	% of Stay as ALC	ALC LOS per ALC Case
Died	211	2.9%	4,923	23.3	7	3.3%	270	8.9%	5.5%	38.6
Home	6,399	87.0%	39,415	6.2	30	0.5%	825	27.1%	2.1%	27.5
Home with Support	222	3.0%	3,116	14.0	7	3.2%	84	2.8%	2.7%	12.0
Signed Out	54	0.7%	136	2.5	0	0.0%	0	0.0%	0.0%	
Xfr to LTC facility	147	2.0%	5,662	38.5	39	26.5%	1,797	59.0%	31.7%	46.1
Xfr to Other	19	0.3%	275	14.5	1	5.3%	53	1.7%	19.3%	53.0
Xfr to Other IP facility	305	4.1%	4,080	13.4	3	1.0%	16	0.5%	0.4%	5.3
Grand Total	7,357	100.0%	57,607	7.8	87	1.2%	3,045	100.0%	5.3%	35.0

The Western region is just below the provincial average in LTC beds/1000 population over 75.

Exhibit 4.31 shows the number of long-term care beds per 1,000 population over 75 years old for each health region. Health Labrador Corporation has almost double the provincial average rate of long-term care beds. The Western region is just below the provincial average, and Grenfell is 15% below the provincial average.

The consultants were told that construction of a new (replacement) long-term care facility is planned for WHCC. Given that delays in access to long-term care beds is the greatest cause of ALC days, rapid approval and availability of the new facility will support achievement of the goal of reduced ALC utilization.

Exhibit 4.31
Long-Term Care Beds per Population Over 75 Years Old



4.3.6 *Quality of Care*

While administrative data collection standards, such as the MIS Guidelines and the CIHI DAD, have been established to support monitoring of utilization and efficiency, there are few widely available and standardized measures of quality of care (particularly outcomes). Some utilization measures that have been previously identified (such as length of stay, mortality rate, and ALC rate) can also be considered measures of quality. The CIHI "Health Indicators, 2004" included some measures of the quality of care provided for Western region residents:

- The in-hospital 30-day stroke mortality rate for WHCC was 18.7%, the lowest in the province.
- The asthma readmission rate was 5.5%, just higher than the provincial average rate of 5.4%.
- The pneumonia readmission rate was 3.8%, the highest in the province.
- The rate of hospitalization for pneumonia and influenza was 1,060 cases per 100,000 population, significantly higher than the national rate of 768 cases.
- The rate of hospitalization for hip fracture was 590 cases per 100,000 population, the highest in the province, but

not significantly different from the national average rate of 554.

- There were 0.7 in-hospital hip fractures per 1,000 population, higher than the provincial rate of 0.5, but lower than the national rate of 0.9.
- The caesarean section rate for WHCC mothers was 26.6%, the same as the provincial average rate, but higher than the national rate of 22.5%.
- Only 12.3% of mothers with a previous caesarean section had a subsequent vaginal delivery, compared with 26.7% nationally.
- The rates of hip and knee replacement for WHCC residents were the highest in the province (49.4 hip replacements and 56.9 knee replacements per 100,000 population), but below the national averages (56.9 hips and 70.5 knees).
- Hysterectomy rates for WHCC residents were the highest in the province (632 per 1,000 population), and among the highest of any communities in the country (the national average was 389).

Bypass surgery rates (135.6 cases per 100,000) were lower than the provincial average (149.4), but 40% above the national average (95.1).

5.0 Clinical Efficiency Analysis

Clinical efficiency analysis refers to the examination of opportunities to reduce use of inpatient days through a shift from inpatient to ambulatory surgery or through reduced length of stay. There are often variations between hospitals (or regions) in use of ambulatory care and variations in lengths of stay for apparently similar patients. Identifying these variations (and sharing the information with clinical staff) is an important step in reducing the variation and reducing the total cost of inpatient care.

Exhibit 5.1 shows the characteristics of inpatient hospital stays for the residents of Newfoundland and Labrador, sorted by their region of residence. Residents of St. John's have the longest average acute care hospital stays (1 day longer than the provincial average). Residents of Grenfell region have the second lowest acute care hospital stays (2 days below the provincial average). The short average LOS for Grenfell residents is partially due to admissions of short stay patients who would either not be treated in a hospital in other regions or would be treated on an ambulatory basis. The average acute care hospital stay for Western region residents is 0.2 days longer than the provincial average.

Exhibit 5.1
Average Length of Stay by Region of Patient Residence (2001/02)

Patient Residence	IP Cases	IP Days	Avg. Total LOS	ALC Days	% ALC	Avg. Acute LOS
Unknown, Out of Province	881	4,744	5.4	27	0.6%	5.4
Grenfell RHSB	3,068	18,129	5.9	184	1.0%	5.8
H&CS - Central	12,707	92,919	7.3	4,541	4.9%	7.0
H&CS - Eastern	11,554	95,074	8.2	6,240	6.6%	7.7
H&CS - St. Johns	18,325	163,044	8.9	11,725	7.2%	8.3
H&CS - Western	10,697	86,421	8.1	5,212	6.0%	7.6
Hlth Labrador Co	3,071	14,616	4.8	200	1.4%	4.7
Grand Total	60,303	474,947	7.9	28,129	5.9%	7.4

5.1.1 Clinical Efficiency Methodology

For the purposes of the best practice review, we have used targets for clinical efficiency based on demonstrated performance of other Canadian hospitals. In addition to the Newfoundland and Labrador CIHI data provided by the NLCHI, CIHI data for hospitals in other provinces, as reported by peer hospitals to the annual CIHI/HayGroup benchmarking study, has been included.

Targets for use of ambulatory surgery and length of stay were developed for each hospital based on peer hospital performance for individual CMGs, age groups (and, initially, case complexity levels[36]). Targets were only applied where at least one hospital had at least 30 cases in a fiscal year in the CMG/age group category.

5.1.2 Peer Groups

The consultants identified (and the Steering Committee confirmed) groups of comparator hospitals for each hospital included in the study. Peer hospitals were selected based on size, clinical activity and geography from Newfoundland & Labrador peers and from participants in the CIHI/HayGroup annual benchmarking study. The peer groups are shown in the following exhibits:

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[36] Initial analyses were based on establishment of targets for individual CMG, patient age, and complexity ("Plx") combinations. Feedback from the project steering committee indicated that the co-morbidity diagnoses that determine CIHI complexity levels are likely under-reported in Western and Grenfell region hospitals. As a result the complexity (Plx) levels were ignored, and targets were established based only on CMG and patient age.

Exhibit 5.2
Western Memorial Hospital Peer Group

Western Memorial	
James Paton Memorial Hospital, Gander	
Central Nfld Regional Health Centre, Grand Falls	
Carbonear General, Carbonear	
Rouge Valley Health Centre	Ajax & Pickering
Fraser Health Region	Burnaby
Grey Bruce Health Services	Owen Sound (Regional)
Guelph General	
Soldiers' Memorial	
Chinook Health Region	Lethbridge Regional
Fraser Health Region	Langley
Fraser Health Region	MSA Hospital
Niagara Health System	Niagara General
Niagara Health System	St. Catharines General
St. Mary's General	
St. Thomas Elgin	
Cambridge Memorial	
Brant CHCS	Brantford General
Miramichi Reg. Hosp.	
Interior Health Authority	Royal Inland
Interior Health Authority	Vernon Jubilee
Interior Health Authority	Penticton Regional

Exhibit 5.3
Roddick Hospital Peer Group

Roddick	
Curtis Memorial	
Dr. GB Cross Memorial	
Burin Peninsula Health Centre	
Lakeridge Health	Port Perry
Lakeridge Health	Bowmanville
Fraser Health Region	Eagle Ridge
Fraser Health Region	Ridge Meadows
Grey Bruce Health Services	Meaford General
South East Regional	Sackville
Northern Lights	
Fraser Health Region	Delta
Niagara Health System	Douglas Memorial
Stanton Territorial H.	
Vancouver Coastal	Powell River
Vancouver Coastal	St. Mary's
Interior Health Authority	Kootenay Boundary
Interior Health Authority	East Kootenay Regional
Interior Health Authority	Shuswap Lake
Interior Health Authority	Kootenay Lake Reg H
Interior Health Authority	South Okanagan Gen H
Interior Health Authority	Boundary

Exhibit 5.4
LeGrow Peer Group

LeGrow HC	
Lakeridge Health	Uxbridge Cottage
Lakeridge Health	Port Perry
Grey Bruce Health Services	Centre Grey General
Grey Bruce Health Services	Meaford General
Grey Bruce Health Services	Saugeen Memoria
South East Regional	Sackville
Chinook Health Region	Taber
Chinook Health Region	Cardston
Chinook Health Region	Crowsnest Pass
Chinook Health Region	Fort Macleod
Chinook Health Region	Border Counties
Chinook Health Region	Pincher Creek
Chinook Health Region	Raymond
Fraser Health Region	Mission
Niagara Health System	Douglas Memorial
Vancouver Coastal	Powell River
Vancouver Coastal	Squamish General
Vancouver Coastal	St. Mary's
Interior Health Authority	Cariboo Memorial
Interior Health Authority	1 Mile House Gen.H
Interior Health Authority	Creston Valley Hospital
Interior Health Authority	Fernie District Hospital
Interior Health Authority	Queen Victoria
Interior Health Authority	Lillooet District H
Interior Health Authority	Arrow Lkes

Exhibit 5.5
Calder, Bonne Bay, Guinchard Peer Group

Calder HC	
Bonne Bay HC	
Guinchard HC	
Dr. Walter Templemen Health Centre	
Fogo Island Hospital	
Connaigre Peninsula Health Centre	
Chinook Health Region	Coaldale
Fraser Health Region	Fraser Canyon
Niagara Health System	Niagara on Lake
Brant CHCS	Willet Hospital
Vancouver Coastal	Bella Coola
Vancouver Coastal	R.W. Large
Interior Health Authority	Golden & District Gen H
Interior Health Authority	Nicola Valley General
Interior Health Authority	Invermere & District H
Interior Health Authority	Princeton General

5.1.3 "Best Quartile" Targets

For each peer group, the "best quartile" target for use of ambulatory surgery and the "best quartile" target for length of stay was calculated for each possible CMG and patient age combination.

The "best quartile" target for ambulatory surgery in a CMG-patient age cell is the percent use of ambulatory surgery where one quarter of the hospitals (with at least 30 cases) in the peer group had a higher percent use of ambulatory surgery, and three quarters of the hospitals had a lower percent use of ambulatory surgery. The impact of the application of the ambulatory surgery targets is used to simulate the reduction of MNRH admissions (presented previously in section 4.1.5).

The "best quartile" target for length of stay in a CMG-patient age cell is the length of stay (for Typical and Outlier cases, including all ALC days) where one quarter of the hospitals (with at least 30 cases) in the peer group had a shorter LOS and three quarters of the hospitals had a longer LOS.

The "best quartile" targets for length of stay were calculated after application of the "best quartile" targets for ambulatory surgery. A hospital may have a low average LOS for a CMG because patients who would be treated on an ambulatory basis in other hospitals get admitted as inpatients for 1 or 2 days. The inclusion of these very short stay cases reduces the average length of stay, and could cause the hospital to look very efficient (based on average LOS) when in fact they have opportunities to further reduce use of inpatient beds. To avoid this we simulate the achievement of "best quartile" ambulatory performance for each hospital (and remove short stay inpatient cases that could have been treated on an ambulatory basis) before calculating the target length of stay.

For a hospital that has aggressively shifted inpatient surgery to ambulatory surgery, this adjustment will have little impact. However, for a hospital that has not shifted inpatient surgery to ambulatory surgery, the adjustment will remove a large number of 1 or 2 day stay cases, and establish a new, longer, average length of stay that gets used with the assessment of length of stay reduction opportunities.

For some CMG-patient age combinations no hospital exceeded the minimum annual volume requirement of 30 cases, so no target was established. Death, transfer, and sign-out cases (and their associated days) are excluded from the clinical efficiency analysis.

5.1.4 Clinical Efficiency Analysis Results

At best quartile performance WMRH would have saved 24.5% of its 2001/02 inpatient days.

The analysis results shown in the following charts show what percent of actual total inpatient days would be saved if each hospital achieved the "best quartile" targets for ambulatory surgery and length of stay for every CMG-patient age combination. The hospitals with the smaller estimated savings opportunities are those whose patterns of practice are already close to the "best quartile" performance levels and who would be considered to be relatively clinically efficient. The hospitals with the larger estimated savings opportunities are those who would be considered to be clinically inefficient. No one hospital is likely to be able to achieve the "best quartile" targets across the board, so even the most efficient hospital will have some further savings opportunities identified through this analysis.

Exhibit 5.6 shows the results of the clinical efficiency analysis for Western Memorial Hospital. The most efficient of the peer hospitals would save 8.1% of total inpatient days at the "best quartile" targets. Western Memorial would save 24.5% of 2001/02 inpatient days.[37]

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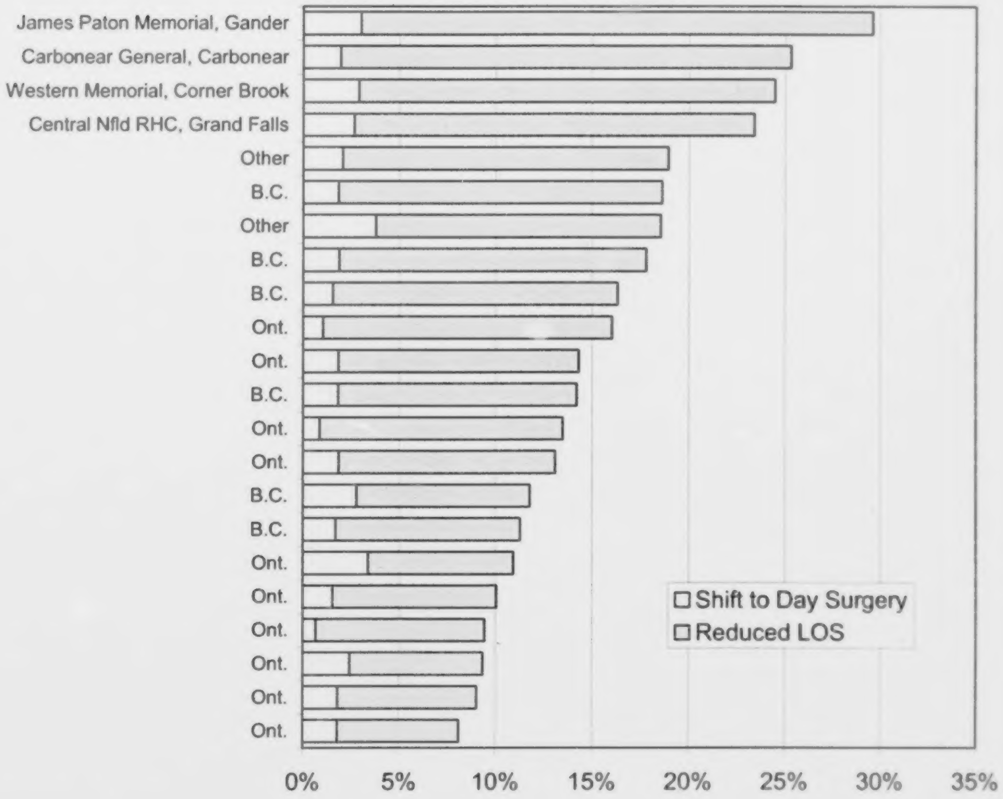
[37] Opportunities to reduce use of inpatient days are expressed as a percent of the total actual inpatient days at each site in 2001/02, but the opportunities are calculated using targets applied to only typical and outlier cases (i.e., no opportunities are calculated for deaths, transfers, or sign/outs).

Exhibit 5.6
Percent of Current Days Saved at "Best Quartile" Targets for Western Memorial (2001/02)



At best quartile performance STRH would have saved 18.9% of its 2001/02 inpatient days.

Exhibit 5.7 shows the results of the clinical efficiency analysis for Sir Thomas Roddick Hospital. The most efficient of the peer hospitals would save 4.2% of total inpatient days at the "best quartile" targets. Sir Thomas Roddick would save 18.9% of 2001/02 inpatient days.

Exhibit 5.7
Percent of Current Days Saved at "Best Quartile" Targets for Sir Thomas Roddick Hospital (2001/02)

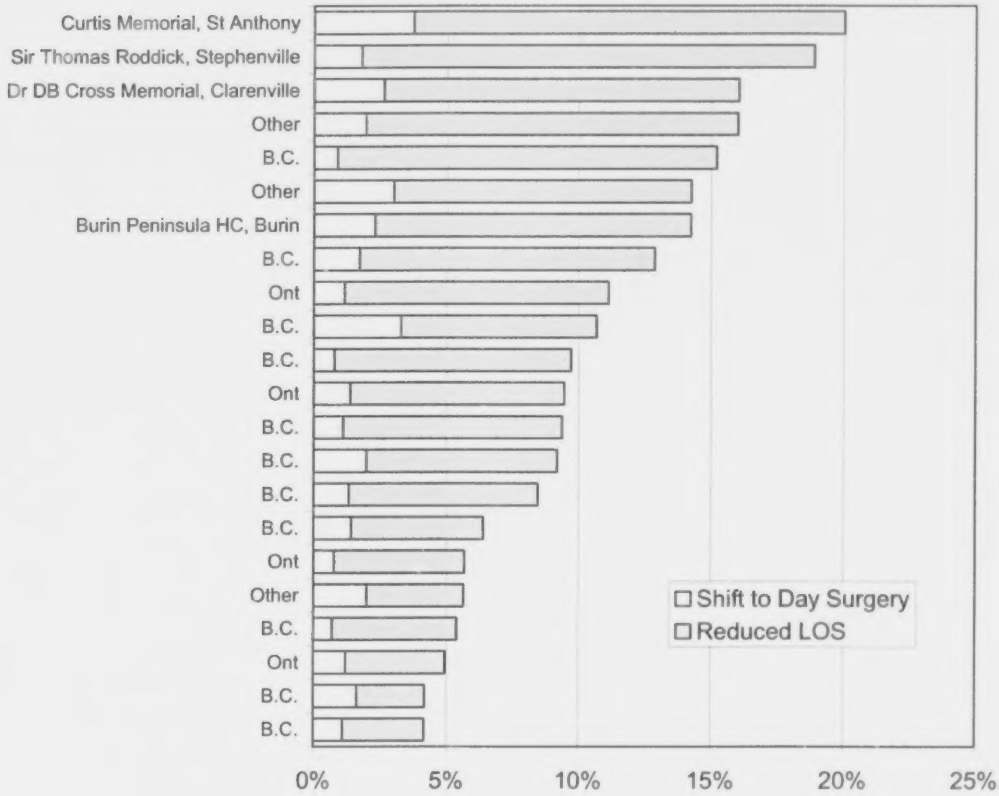


Exhibit 5.8 shows the results of the clinical efficiency analysis for Charles LeGrow Hospital. The most efficient of the peer hospitals would save 3.0% of total inpatient days at the "best quartile" targets. Charles LeGrow would save 11.6% of 2001/02 inpatient days.

Exhibit 5.8
Percent of Current Days Saved at "Best Quartile" Targets for Charles LeGrow (2001/02)

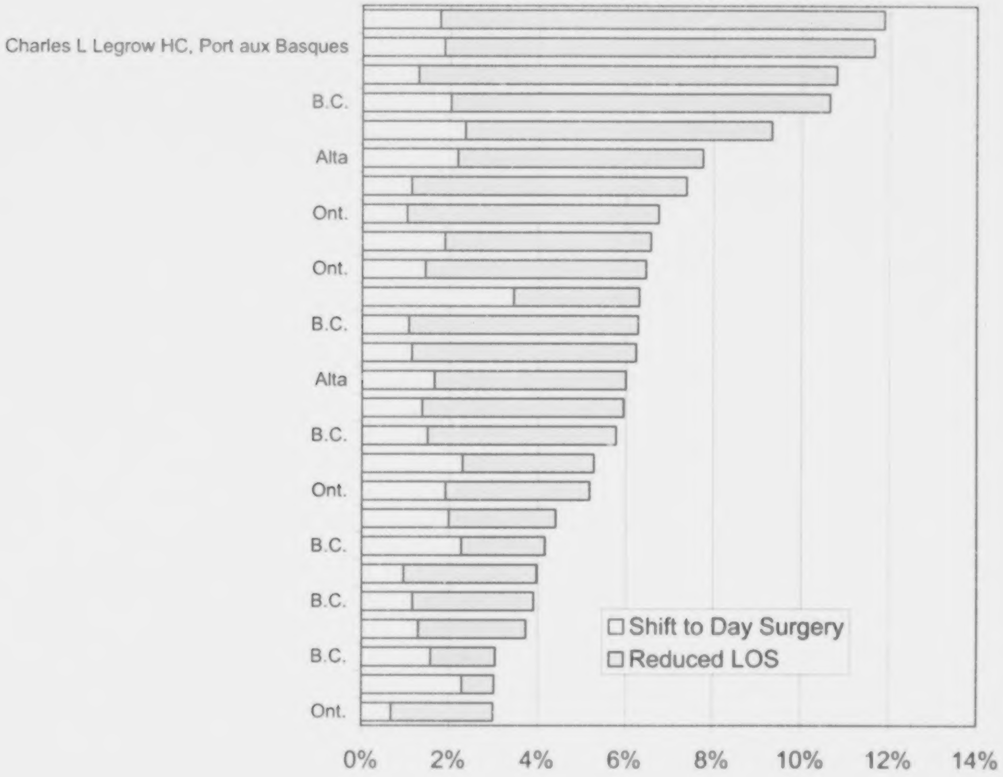


Exhibit 5.9 shows the results of the clinical efficiency analysis for Calder, Rufus Guinchard, and Bonne Bay health centres. The hospitals in this peer group are generally too small to have enough annual cases in the CMG-patient age combinations to exceed the minimum volume requirement to be considered for target setting.[38]

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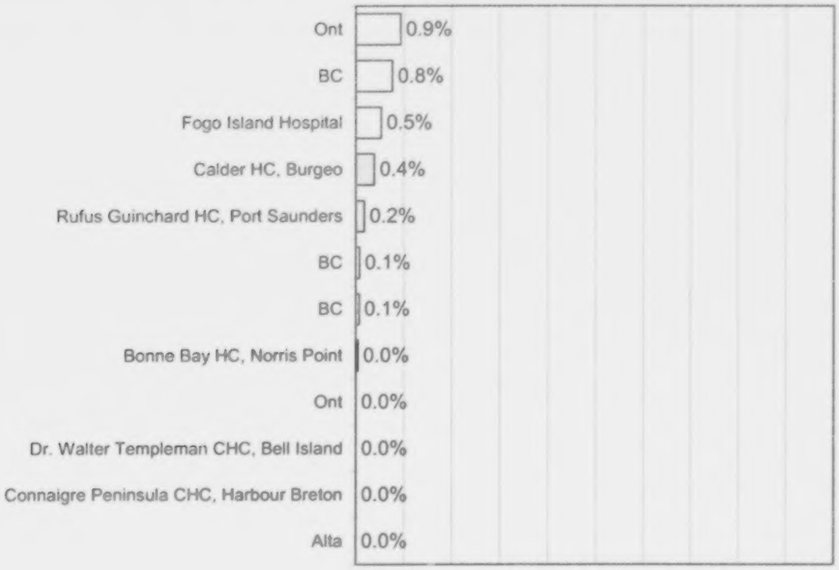
[38] The minimum volume threshold was reduced from 30 to 15 cases in a CMG-patient age cell for this peer group.

Exhibit 5.9
Percent of Current Days Saved at "Best Quartile" Targets for Calder, Rufus Guinchard, and Bonne Bay Health Centres (2001/02)



5.1.5 Inpatient Day Reduction Targets

It is generally not considered feasible to achieve "best quartile" targets across the board. Instead we have assumed that the study hospitals should be able to improve their clinical efficiency to the median level achieved in their peer group. The resulting clinical efficiency targets for each study hospital are:

- Western Memorial Hospital – estimated opportunity at "best quartile" performance was 24.5%. Median opportunity of peer group was 14.3%. If Western Memorial operated at the median performance level of the peer group it could save 10.2% of 2001/02 inpatient days.
- Sir Thomas Roddick Hospital – estimated opportunity at "best quartile" performance was 18.9%. Median opportunity of peer group was 9.6%. If Sir Thomas Roddick operated at the median performance level of the peer group it could save 9.3% of 2001/02 inpatient days.
- Charles LeGrow Hospital – estimated opportunity at "best quartile" performance was 11.6%. Median opportunity of peer group was 6.1%. If Charles LeGrow operated at the median performance level of the peer group it could save 5.5% of 2001/02 inpatient days.

The Clinical Efficiency Target for WMRH is Reduced to Reflect Impact on Non-Reported Ambulatory Surgery Data.

In 2001/02 (the year for which the clinical efficiency analysis data is available) some ambulatory procedures performed at Western Memorial Hospital were not abstracted and reported to CIHI. This means that the actual percent use of ambulatory surgery for some CMGs may be under-represented in the data. To adjust for this missing data we have reduced the magnitude of the overall inpatient day reduction target to 9.1%,[39] reflecting an assumed percent use of ambulatory surgery in 2001/02 at WMRH equal to the median percent use of ambulatory surgery in the peer group.

5.1.6 Ambulatory Surgery Opportunities by CMG

The following tables show the individual CMGs at each hospital that were identified as having the greatest opportunity to reduce inpatient days by shifting inpatient cases to ambulatory procedure. The opportunities for WMRH are based on the reported 2001/02 data. If all ambulatory procedures had been abstracted and reported to CIHI in 2001/02, apparent WMRH opportunities would be reduced. This has been taken into account through reduction of the overall WMRH target for reduction in inpatient days.

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[39] The calculated opportunity to reduce use of inpatient days at Western Memorial based on best quartile ambulatory procedure targets was 2.9%. The median opportunity in the peer hospitals from ambulatory procedure targets was 1.8%. To account for the under-reporting of SDS cases at Western Memorial in 2001/02, the overall target was reduced by 1.1% (from 10.2% to 9.1%), the difference between the WMRH 2.9% and the peer 1.8%.

Exhibit 5.10
Top 15 CMGs for Opportunity to Shift Inpatient Cases to Ambulatory Procedures – Western Memorial (2001/02)

Case Mix Group		IP Cases	SDS Cases	% SDS	Cases to SDS	Resulting % SDS	Days to Save
294	Esoph/Gastro/Misc Digest Dis	309	9	2.8%	108	36.9%	204
579	Maj Ut/Adnexal Proc No Malig	233	54	18.8%	66	41.8%	190
93	Tonsill/Adenoidectomy (MNRH)	128	44	25.6%	122	96.2%	122
317	Laparoscopic Cholecystectomy	133	32	19.4%	95	77.2%	120
512	Oth Transureth Proc/Bx(MNRH)	78	0	0.0%	48	61.5%	99
536	Urinary Obstruction (MNRH)	78	0	0.0%	40	51.3%	79
269	Bilateral Hernia Procedures	72	54	42.9%	46	79.5%	69
375	Minor Upper Extremity Proc	40	27	40.3%	33	89.3%	58
581	Gyn Reconstructive Procedures	67	1	1.5%	17	26.5%	43
617	Abortive Outcome With D&C	26	10	27.8%	24	94.0%	38
483	Diabetes	79	0	0.0%	13	16.5%	36
329	Biliary Tract Disease	44	0	0.0%	17	38.6%	34
696	Upper Extremity Fractures	30	4	11.8%	25	85.3%	33
281	G.I. Hemorrhage	55	1	1.8%	14	26.8%	30
271	Unilateral Hernia Proc (MNRH)	27	41	60.3%	21	90.5%	28
297	Other G.I. Diagnoses	39	2	4.9%	15	41.5%	25
All Other CMGS		5,919	1,956	24.8%	301	28.7%	455
Total		7,357	2,235	23.3%	1,004	33.8%	1,663

Exhibit 5.11
Top 15 CMGs for Opportunity to Shift Inpatient Cases to Ambulatory Procedures – Sir Thomas Roddick (2001/02)

Case Mix Group		IP Cases	SDS Cases	% SDS	Cases to SDS	Resulting % SDS	Days to Save
536	Urinary Obstruction (MNRH)	30	3	9.1%	20	69.6%	34
266	Anus & Stomal Proc (MNRH)	19	19	50.0%	17	93.8%	30
317	Laparoscopic Cholecystectomy	49	11	18.3%	27	64.2%	27
893	Vein Ligation & Strip (MNRH)	10	3	23.1%	10	100.0%	15
617	Abortive Outcome With D&C	10	1	9.1%	9	90.4%	13
297	Other G.I. Diagnoses	15	80	84.2%	7	91.1%	13
269	Bilateral Hernia Procedures	10	26	72.2%	6	87.7%	9
529	Lower Urinary Tract Infection	20	0	0.0%	3	15.0%	8
55	Lens Insertion (MNRH)	6	117	95.1%	6	100.0%	8
587	Misc Gyn Procedures (MNRH)	8	217	96.4%	6	99.2%	6
704	Red Blood Cell Disorders	14	2	12.5%	3	29.4%	6
57	Other Ophthalmic Proc (MNRH)	4	23	85.2%	4	100.0%	6
851	Oth Factors Cause Hospitaliz	42	1	2.3%	5	14.0%	5
281	G.I. Hemorrhage	13	5	27.8%	2	40.5%	5
294	Esoph/Gastro/Misc Digest Dis	52	221	81.0%	2	81.7%	4
425	Skin Grf/Wnd Db (Ex Ulc/Cell)	5	3	37.5%	3	80.7%	4
All Other CMGS		1,266	464	26.8%	8	27.3%	12
Total		1,573	1,196	43.2%	137	48.1%	205

For Charles LeGrow, the total estimated opportunity to shift inpatient cases to ambulatory procedure in 2001/02 was 48 cases (based on "best quartile" targets). 28 cases were in CMG 294 Esophagitis/Gastro-Enteritis/Miscellaneous Digestive Disease, 7 in CMG 536 Urinary Obstruction (MRH) and 4 each in CMG 529 Lower Urinary Tract Infection and CMG 586 Tubal Interruption (MNRH).

5.1.7 Total Inpatient Day Reduction Opportunities by CMG

In 2001/02, the WMRH "typical" case length of stay was 21.9% above the CIHI expected LOS for similar patients.

The following tables show the individual CMGs at each hospital that were identified as having the greatest opportunity to reduce inpatient days, primarily by shortening length of stay (based on "best quartile" targets).

In 2001/02, the Western Memorial Regional Hospital "typical" case length of stay was 21.9% above the CIHI expected LOS for the combinations of CMGs, patient age, and patient complexity, of WMRH inpatients. If the proposed reductions in inpatient days (9.1% of total days) were achieved only by reducing the LOS for "typical" patients, the WMRH average LOS for these typical patients would be 101% of the CIHI expected LOS. For internal LOS monitoring and management purposes, WMRH should target to achieve the CIHI ELOS performance level.

Exhibit 5.12
Top 15 CMGs for Opportunity to Reduce Inpatient Days – Western Memorial (2001/02)

CMG #	CMG Name	2001/02 Actual				Impact of Best Quartile Targets					
		IP Cases	IP Days	LOS	SDS Cases	IP Cases	IP Days	LOS	SDS Cases	Days to	% Days to Save
294	Esoph/Gastro/Misc Digest Dis	309	1,623	5.3	9	201	820	4.1	117	803	49.5%
579	Maj Ut/Adnexal Proc No Malig	233	1,067	4.6	54	167	559	3.4	120	508	47.6%
140	Chr Obstructive Pulmonary Dis	59	1,084	18.4	0	59	601	10.2	0	483	44.6%
792	Adjustment Disorders(MNRH)	65	661	10.2	0	65	228	3.5	0	433	65.5%
662	Femur/Pelvis Proc For Trauma	52	955	18.4	0	52	530	10.2	0	425	44.5%
611	Vaginal Delivery	335	1,113	3.3	0	335	692	2.1	0	421	37.8%
213	Uns Angina No Cath/Spec Cond	140	1,436	10.3	0	140	1,028	7.3	0	408	28.4%
483	Diabetes	79	723	9.2	0	66	318	4.8	13	405	56.1%
13	Spec Cerebrovasc Disord(xTIA)	79	1,070	13.5	0	79	712	9.0	0	358	33.5%
648	Neo,Wt>2500G,Normal Newborn	375	1,028	2.7	0	355	709	2.0	20	319	31.0%
766	Depress Mood Dis No ECT/Ax3	80	1,608	20.1	0	80	1,298	16.2	0	310	19.3%
842	Signs & Symptoms	16	441	27.6	0	16	142	8.9	0	299	67.9%
208	AMI No Card Cath No Spec Cond	122	1,223	10.0	0	122	926	7.6	0	297	24.3%
764	Depress Mood Disord With ECT	9	460	51.1	49	9	165	18.3	49	295	64.2%
237	Arrhythmia	80	591	7.4	0	80	305	3.8	0	286	48.4%
Grand Total (All CMGs)		7,357	57,607	7.8	2,235	6,353	43,503	6.8	3,239	14,104	24.5%

In 2001/02, the STRH "typical" case length of stay was 21.9% above the CIHI expected LOS for similar patients.

In 2001/02, the Sir Thomas Roddick Hospital "typical" case length of stay was 21.9% above the CIHI expected LOS for the combinations of CMGs, patient age, and patient complexity, of Sir Thomas Roddick inpatients. If the proposed reductions in inpatient days (9.3% of total days) were achieved only by reducing the LOS for "typical" patients, the Sir Thomas Roddick Hospital average LOS for these typical patients would be 97% of the CIHI expected LOS. For internal LOS monitoring and management purposes, WMRH should target to achieve the CIHI ELOS performance level.

Exhibit 5.13
Top 15 CMGs for Opportunity to Reduce Inpatient Days – Sir Thomas Roddick (2001/02)

CMG #	CMG Name	2001/02 Actual				Impact of Best Quartile Targets					
		IP Cases	IP Days	LOS	SDS Cases	IP Cases	IP Days	LOS	SDS Cases	Days to Save	% Days to Save
222	Heart Failure	42	552	13.1	0	42	319	7.6	0	233	42.1%
14	TIA & Precerebral Occlusions	4	188	47.0	0	4	11	2.7	0	177	94.2%
847	Other Specified Aftercare	53	1,170	22.1	0	53	1,004	19.0	0	166	14.1%
213	Uns Angina No Cath/Spec Cond	34	315	9.3	0	34	152	4.5	0	163	51.6%
143	Simple Pneumonia & Pleurisy	46	441	9.6	0	46	294	6.5	0	147	33.3%
485	Nutrit/Misc Metabolic Disord	12	169	14.1	1	11	49	4.4	2	120	70.9%
142	Chronic Bronchitis	47	426	9.1	0	47	319	6.8	0	107	25.1%
294	Esoph/Gastro/Misc Digest Dis	52	262	5.0	221	50	179	3.6	223	83	31.6%
611	Vaginal Delivery	73	236	3.2	0	73	154	2.1	0	82	34.8%
237	Arrhythmia	41	197	4.8	0	41	117	2.9	0	80	40.5%
483	Diabetes	25	273	10.9	0	25	197	7.9	0	76	27.8%
648	Neo,Wt>2500G,Normal Newborn	77	228	3.0	0	77	156	2.0	0	72	31.4%
242	Chest Pain	18	74	4.1	0	18	29	1.6	0	45	61.4%
317	Laparoscopic Cholecystectomy	49	94	1.9	11	22	52	2.4	38	42	44.4%
792	Adjustment Disorders(MNRH)	17	100	5.9	0	17	62	3.7	0	38	37.6%
Grand Total (All CMGs)		1,573	11,397	7.2	1,196	1,436	9,244	6.4	1,333	2,153	18.9%

In 2001/02, the Charles L LeGrow Hospital "typical" case length of stay was 5.7% above the CIHI expected LOS for the combinations of CMGs, patient age, and patient complexity, of Charles L LeGrow inpatients. If the proposed reductions in inpatient days (5.5% of total days) were achieved only by reducing the LOS for "typical" patients, the Charles L LeGrow Hospital average LOS for these typical patients would be 95% of the CIHI expected LOS. For internal LOS monitoring and management purposes, Charles L LeGrow Hospital should target to achieve the CIHI ELOS performance level.

Exhibit 5.14
Top 15 CMGs for Opportunity to Reduce Inpatient Days – Charles L LeGrow (2001/02)

CMG #	CMG Name	2001/02 Actual				Impact of Best Quartile Targets					
		IP Cases	IP Days	LOS	SDS Cases	IP Cases	IP Days	LOS	SDS Cases	Days to Save	% Days to Save
143	Simple Pneumonia & Pleurisy	22	283	12.9	0	22	111	5.1	0	172	60.6%
294	Esoph/Gastro/Misc Digest Dis	57	149	2.6	48	29	84	2.9	76	65	43.6%
13	Spec Cerebrovasc Disord(xTIA)	22	226	10.3	0	22	179	8.1	0	47	20.7%
483	Diabetes	23	156	6.8	0	23	109	4.8	0	47	29.9%
213	Uns Angina No Cath/Spec Cond	39	217	5.6	0	39	171	4.4	0	46	21.3%
142	Chronic Bronchitis	10	84	8.4	0	10	71	7.1	0	13	15.9%
536	Urinary Obstruction (MNRH)	10	38	3.8	2	3	26	8.7	9	12	31.6%
529	Lower Urinary Tract Infection	7	22	3.1	3	3	13	4.3	7	9	40.9%
813	Drug Reaction	4	12	3.0	0	4	5	1.3	0	7	58.3%
611	Vaginal Delivery	16	39	2.4	0	16	32	2.0	0	7	17.9%
604	Caesarean Delivery	4	20	5.0	0	4	14	3.6	0	6	28.0%
646	Neo,Wt>2500G,Caesarean Delivr	5	21	4.2	0	5	16	3.2	0	5	24.5%
586	Tubal Interruption (MNRH)	4	4	1.0	0	0	0		4	4	100.0%
22	Seizure And Headache	7	20	2.9	0	7	16	2.3	0	4	18.9%
648	Neo,Wt>2500G,Normal Newborn	17	37	2.2	0	17	34	2.0	0	3	8.1%
Grand Total		662	3,932	5.9	264	614	3,474	5.7	312	458	11.6%

5.1.8 Estimated Potential Cost Savings From Clinical Efficiencies

The previously presented analyses show the estimated percent of inpatient days that could be saved through improved clinical efficiency. The targets have been established by applying the "best quartile" targets at the CMG-patient age level to all of the hospitals in a peer group, and then using the median performance level in the peer group to create a target for reduction in use of inpatient days for the study hospitals.

Percent targets for reduction in use of inpatient days do not translate into the same percent targets for reduction in costs. Cost savings estimates will be lower because:

- Not all costs will be reduced when inpatient days are eliminated. Some fixed costs cannot be reduced (particularly in small facilities) or will not change unless entire nursing units can be closed.
- Clinical efficiency savings target elimination of lower cost days at the end of a patient's stay or the shift of minor surgical procedures to SDS (which may eliminate a day or two of inpatient care, but won't impact the surgical costs).

To model the potential cost savings impact of the proposed targets for reduction of inpatient days, we have used the CIHI RIW components to calculate the marginal impact of reduction of days at the end of an inpatient stay. For shifts from inpatient surgery to SDS, we have eliminated the "typical" inpatient RIW and added the corresponding DPG RIW for the procedure.

For length of stay reductions, we assume that the first days saved will be ALC days, and use the CIHI "low severity" per diem RIW to estimate the impact of removal of these days. If the days to save are greater than the reported ALC days, we assume that the savings associated with elimination of these additional days will be based on the CIHI "routine/ancillary" (R/A) per diem weight for the CMG. These estimates are used to calculate a hospital-specific estimated RIW reduction per inpatient day saved and apply an estimated cost saving target per RIW (based on actual direct cost per RIW values from peer hospitals[40]) to generate a direct cost savings figure.

Exhibit 5.15 shows the results of this cost saving analysis for the three Western region hospitals to which clinical efficiency targets have been applied. While the overall target for reduction of inpatient days is 8.9% of total days, we estimate that the corresponding reduction in direct costs would be only 5.6% of total direct costs or $1.68 million.

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[40] Data was not available to support the calculation of actual WHCC hospital-specific direct cost per RIW weighted case values.

Exhibit 5.15
Estimated Direct Cost Savings from Clinical Efficiencies (2001/02)

Region	Hospital	Actual IP Days	Actual Total RIW	% Days to Save @ Tgt	Estimated IP Day Savings	RIW Red'n per Day Saved	Est. Direct Savings per RIW	Direct Cost Savings	% RIW Red'n
Western	Western Memorial	57,607	9,698	9.1%	5,242	0.107	$ 2,450	$ 1,374,252	5.8%
	Sir Thomas Roddick	11,397	1,917	9.3%	1,060	0.095	$ 2,450	$ 246,697	5.3%
	Charles L LeGrow	3,932	648	5.5%	216	0.108	$ 2,450	$ 57,222	3.6%
Total		72,936	12,263	8.9%	6,518	0.105	$ 2,450	$ 1,678,171	5.6%

While the analysis of clinical efficiency savings opportunities has been based on 2001/02 data (the most recent year for which comprehensive provincial data is available), CIHI length of stay performance is available for more recent years. The CIHI length of stay performance is calculated only on the basis of "typical" patients (patients who are not outliers and complete a full course of treatment in the acute care hospital) and excludes reported ALC days, and so is not directly comparable to the LOS performance calculations and targets used in this review. However, it does provide an indication of whether the length of stay performance has improved or deteriorated since 2001/02. Exhibit 5.16 shows the CIHI expected length of stay (ELOS) performance for Western Memorial, Sir Thomas Roddick, and Charles L LeGrow hospitals.

Exhibit 5.16
CIHI Typical Case ELOS Performance
for Largest WHCC Hospitals from 2001/02 to 2003/04 (YTD)

Western Memorial							
Year	Typical Cases	Typical Days	Expected Days	Actual LOS	Expected LOS	Actual - Expected LOS	ELOS Performance
2001/02	5,999	30,026	24,855	5.01	4.14	0.86	120.8%
2002/03	5,487	28,002	21,837	5.10	3.98	1.12	128.2%
2003/04*	4,057	21,638	16,549	5.33	4.08	1.25	130.8%

Sir Thomas Roddick							
Year	Typical Cases	Typical Days	Expected Days	Actual LOS	Expected LOS	Actual - Expected LOS	ELOS Performance
2001/02	1,242	6,184	5,217	4.98	4.20	0.78	118.5%
2002/03	1,059	5,324	4,384	5.03	4.14	0.89	121.4%
2003/04*	777	4,223	3,291	5.44	4.23	1.20	128.3%

Charles L LeGrow							
Year	Typical Cases	Typical Days	Expected Days	Actual LOS	Expected LOS	Actual - Expected LOS	ELOS Performance
2001/02	493	2,218	2,117	4.50	4.29	0.20	104.8%
2002/03	543	2,307	2,474	4.25	4.56	-0.31	93.3%
2003/04*	419	1,915	1,931	4.57	4.61	-0.04	99.2%

* 2003/04 data is for April to December year-to-date.

The WMRH LOS performance has deteriorated by almost 50% from 20.8% above the expected in 2001/02 to 30.8% above the expected in 2003/04.

In 2001/02, WMRH's actual typical LOS was 20.8% above expected. The WMRH LOS performance has deteriorated in subsequent years and was 30.8% above expected in 2003/04. This means that there may now be greater opportunities to reduce use of inpatient days (and to generate clinical efficiency savings) than there were in 2001/02.

The STRH LOS performance has also deteriorated since 2001/02.

The Charles L LeGrow LOS performance has improved since 2001/02, meaning that much of the calculated clinical efficiency savings for this hospital may have already been achieved.

5.1.9 Estimated Timing of Savings

We estimate that 25% of estimated direct cost savings from clinical efficiency opportunities could be achieved in the first year of implementation, 50% in the second year, and the remaining 25% in the third year.

Exhibit 5.17
Estimated Clinical Efficiency Direct Cost Savings by Year

Region	Direct Cost Savings	Year 1	Year 2	Year 3
Western HCC	$ 1,678,148	$ 419,537	$ 839,074	$ 419,537
Total Annual Savings in Year		$ 419,537	$ 1,258,611	$ 1,678,148

Recommendation:

It is recommended that:

(76) **The WHCC Board should establish a target for reduction of use of inpatient days based on the results of the clinical efficiency analyses conducted during the Best Practices Review.**

Best Practices Review

Western Health Care Corporation

February 10, 2005

HayGroup

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6.0 Operations Analysis

Pressures to manage operating costs are challenging health service organizations to find new ways of doing things, while at the same time demanding that service quality be maintained and even improved. Service delivery is composed of three integrated components, as follows:

- Human Resources – staffing, organization, competencies, training and education
- Technology - "tools" used in delivering services (information systems, equipment, etc.)
- Process - methods and organization of how services are delivered.

One of the principal objectives of the 'Best Practices Review of WHCC has been to identify potential opportunities where WHCC could improve the efficiency and cost effectiveness of its sites, services and functional centres.

On-Site Interviews and Observations

On-site reviews and interviews were conducted in the following sites:

- Hospitals:
  - Western Memorial Regional Hospital
  - Sir Thomas Roddick Hospital
- Health Centres:
  - Calder Health Centre
  - Dr. Charles L. LeGrow Health Centre
  - Bonne Bay Health Centre
  - Rufus Guinchard Health Centre
- Long-Term Care Facilities:
  - Bay St. George Long Term Care Centre
  - Dr. J. I. O'Connell Centre
  - Interfaith Home for Senior Citizens

related to the following service areas:

- Special Care Areas (ED, ORs, PARRs, CCUs)
- Acute Care Nursing Units
- Long-Term Care Nursing Units
- Community Services

- Therapeutic Services
- Diagnostic Services
- Support Services
- Administrative Services

Functional centers and sites were visited when there was a reasonable expectation of achieving improvements in operating efficiency or when there were concerns that low staffing levels might be having a deleterious impact on service quality. The areas of focus during the on-site reviews were:

- Management processes
- Operations and procedures
- Inter-departmental coordination and processes
- Inter-site coordination and processes
- Facilities, Equipment and Supplies
- Productivity Review
- Opportunities for improvement, including redesign or reengineering of work processes, alternative service delivery approaches, improved use of information technology, etc.

The degree and magnitude of improvements in productivity and reductions in cost that the functional centres could achieve were determined through these on-site interviews, and observations and through follow-up data analyses and comparisons with the performance of peer hospitals and health care organizations.

The performance of WHCC functional centres was compared to the performance of a peer comparator group consisting of Newfoundland and Labrador and Canadian hospitals and health regions.

For purposes of this review it was agreed by the project's Steering Committee that the performance of the WHCC hospitals, health centres and functional centres would be compared against a peer comparator groups[41] comprised of the following Newfoundland and Labrador and Canadian hospitals and health regions:

- Comparators for Western Memorial Regional Hospital
  - Central Newfoundland Regional Health Center

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[41] Where organizational size might impact on productivity of a functional centre, comparators within the subgroups were employed. Where organizational size was not thought to be important to achievable productivity performance, the entire set of comparators was used in developing the range of peer performance.

  - Carbonear General Hospital
  - James Paton Memorial Hospital
  - Ajax & Pickering General Hospital, Ontario
  - Brantford General Hospital, Ontario
  - Cambridge Memorial Hospital, Ontario
  - Guelph General Hospital, Ontario
  - St. Mary's Hospital, Kitchener, Ontario
  - Soldier's Memorial Hospital, Orillia, Ontario
  - St. Thomas Elgin General Hospital, Ontario
  - Grey Bruce Health Services, Ontario
  - Niagara Health System, Ontario
  - Chinook Health Authority, Lethbridge Regional Hospital, Alberta
  - Fraser Health Authority: Burnaby Hospital, B.C.
  - Fraser Health Authority, Matsqui-Sumas-Abbotsford General Hospital, B.C.
  - Interior Health Authority, Royal Inland Hospital, B.C
  - Interior Health Authority, Vernon Jubilee Hospital, B.C.
  - Interior Health Authority, Penticton Regional Hospital, B.C.
- Comparators for Sir Thomas Roddick Hospital
  - Burin Peninsula Health Care Centre
  - Charles S Curtis Memorial Hospital, St. Anthony
  - Dr GB Cross Memorial Hospital, Clarenville
  - Stanton Territorial Health Authority, NT
  - Northern Lights Health Region, Alberta
  - Interior Health Authority, Kootenay Boundary Regional Hospital, BC
  - Interior Health Authority, East Kootenay Regional Hospital, BC
  - Interior Health Authority, Kootenay Lake District Hospital, BC
  - Interior Health Authority, Boundary, BC

- Interior Health Authority, South Okanagan General Hospital, BC
- Fraser Health Authority- Eagle Ridge Hospital, BC
- Fraser Health Authority, Ridge Meadows Hospital, BC
- Fraser Health Authority, Delta, BC

- Comparators for Health Centres
  - Bonne Bay Health Centre Norris Point
  - Calder Health Centre, Burgeo
  - Dr. Charles L LeGrow Health Centre, Port aux Basque
  - Rufus Guinchard Health Centre, Port Saunders
  - Strait of Belle Isle Health Care Centre, Flower's Cove
  - Southeast Labrador Health Care Centre, Forteau
  - White Bay Central Health Care Centre, Roddickton
  - Dr Walter Templeman Community Health Centre
  - Fogo Island Hospital
  - Connaigre Peninsula Health Centre
  - Willet Hospital, Paris Ontario
  - Chinook Health Authority, Cardston, Alberta
  - Chinook Health Authority, Pincher Creek, Alberta
  - Chinook Health Authority, Raymond, Alberta
  - Chinook Health Authority, Taber, Alberta
  - Chinook Health Authority, Border Counties, Alberta
  - Chinook Health Authority, Coaldale, Alberta
  - Chinook Health Authority, Magrath, Alberta
  - Chinook Health Authority, Picture Butte, Alberta
  - Interior Health Authority, Creston Valley Hospital, B.C.
  - Interior Health Authority, Elkford Health Care Ctr, B.C.
  - Interior Health Authority, Fernie District Hospital, B.C.
  - Interior Health Authority, Golden & District Gen Hospital, B.C.
  - Interior Health Authority, Invermere & District Hospital, B.C.

- Interior Health Authority, Kimberley & Dist Hospital, B.C.
- Interior Health Authority, Sparwood Healthcare Centre, B.C.
- Interior Health Authority, Arrow Lakes, B.C.
- Interior Health Authority, Slocan Community Hospital, B.C.
- Interior Health Authority, South Similkameen HC, B.C.
- Interior Health Authority, Pleasant Valley HC, B.C.
- Interior Health Authority, Princeton General, B.C.
- Interior Health Authority, Cariboo Memorial Hospital, B.C.
- Interior Health Authority, 100 Mile District Hospital, B.C.
- Fraser Health Authority, Mission Memorial Hospital, B.C.
- Fraser Health Authority, Fraser Canyon Hospital, B.C.

Each of WHCC's functional centre's performance was compared to peer performance.

Each of WHCC's functional centre's performance was compared to peer performance[42] in relation to the following parameters of the distribution of peer performance:

- Best quartile Performance Level
- Median Performance Level
- Mean Performance Level
- Worst Quartile Performance Level

The peer performance ranges were developed using each peer organization's reported 2002/03 data in accordance with the Canadian Management Information Systems (MIS) reporting guidelines.[43] Comparisons of WHCC functional centres performance was primarily based on the WHCC 2003/04 performance as reported to the project team by the hospital[44].

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[42] The only major exception to this is in Long Term Care. Significant differences in the organization of long-term care services among provinces makes inter-provincial comparisons of productivity in long-term care facilities quite difficult. Nursing home care in WHCC includes care that in other provinces might be considered chronic hospital care, nursing home care and personal care. We have drawn on our experience in working in LTC in other provinces to assess the staff: workload relationship in WHCC.

The best quartile is considered to be a reasonable surrogate for best practice performance.

The best quartile is considered to be a reasonable surrogate for best practice performance and is a reasonable expectation for the level of performance for high performing functional centres in Canadian hospitals and health care organizations. It is generally thought that best productivity performance (the fewest hours/unit of workload) is not a reasonable target for the purposes of this type of comparison and for this type of operational/funding review. (However, it should be noted that many health care organizations are benchmarking and attempting to achieve best practice performance as part of their Continuous Quality Improvement Exercises.) Using the best quartile in place of the best productivity also ensures that the analysis excludes apparently extremely good performance results that might be based on errors in measurement and reporting rather than efficient processes.

Performance targets have been recommended for each functional centre based on both the comparative analyses and the on-site reviews.

The use of the best quartile performance level as the surrogate for best practice *does not imply* that this is the ideal, expected or achievable performance level for WHCC functional centres. In this project we have recommended performance targets for each functional centre based on both the comparative analyses and the on-site reviews[45]:

- For many functional centers we have recommended improvements in levels of performance to achieve best practice.
- In some functional centers there are factors that militate against achieving best practice performance. Poor

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[43] While the MIS Guidelines provide a uniform set of reporting guidelines there continues to be vagaries in reporting of workload, staffing and costs among Canadian hospitals. The budget for this project did not allow for reviewing the reporting of comparator hospitals to confirm the accuracy of their data. However, given the number of comparators and the use of the best quartile rather than the 'best practice' performance level, the vagaries in reporting should not have a significant impact on the reasonableness of the performance targets established in this project.

[44] Prior to conducting the comparisons a data review and refinement exercise was undertaken with WHCC staff to address obvious errors/omissions identified in WHCC reported data.

[45] Although the NL DHCS suggests staffing levels for WHCC functional centres, the purpose of this study was to compare WHCC against Canadian 'best practice'. As a result, we have compared the performance of WHCC to the performance of the peer organizations. We have not compared or evaluated the standards established by the department.

facilities, inadequate technologies and low volumes are some of these factors. The suggested/targeted performance levels will leave the functional centre less productive than the best quartile performance level of the comparator organizations.

- In other areas current performance is better than the best quartile performance of the peer organizations. If quality was not an issue, in these functional centers the performance target was set at the current level of performance rather than the best quartile performance level of the peer group.

As WHCC moves forward with the recovery plan opportunities for further improvements in performance may be identified.

Functional centre performance targets and the reported workload were used to determine required staffing or costs. These were compared to the staffing and costs reported by WHCC to determine the potential savings were the organization to achieve the recommended performance targets[46].

Also, it should be noted that the selected comparators for STRH and the Health Centres are relatively small, low volume organizations or sites. Like WHCC they too struggle to achieve efficiencies with small volumes and variable workload. As WHCC strives to improve its performance, it might consider the levels of efficiency achieved by larger organizations and health care sites. These likely would better reflect industry best practice.

6.1 Overarching Issues in Nursing Services

6.1.1 Nursing Sick-time, Over-time and Call backs

There is significant sick time and over time usage at most of the sites.

There is significant concern regarding the level of sick and overtime usage at most of the sites. This is a significant issue across the organization but is of special interest in nursing because of the number of nursing staff, the number of sick days expended and the number of these days that need to be replaced. There is an added cost of care when the sick time is replaced; but there is potential reduction in quality and safety if the sick time is not replaced. There is concern regarding the sense of sick time 'entitlement' among the nursing staff. Findings and recommendations regarding the corporate approach to attendance management are made elsewhere in this report.

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[46] FTE Savings Potential =(Target productivity - actual productivity) * workload * FTE/Worked Hour
$ Potential = FTE Potential * $/FTE.

If overtime were reduced by only 20% there would be an annual savings of approximately $75,000.

Most of the sites have little flexibility in back filling positions related to sick and vacation. This results in a significant use of overtime to provide replacement coverage. Overall, WHCC had overtime costs of $1,120,734 or 0.92% of total labour cost in 2003/04 with $585,000 in Nursing.

The Corporation should establish policies to better control and reduce the use of overtime. If overtime were reduced by only 20% there would be an annual savings of approximately $75,000 even if those hours were simply replaced by staff working at regular time.

Recommendation:

It is recommended that:

(77) The Chief Nursing Officer and Directors of Nursing should develop and implement guidelines for the use overtime.

WHCC had callback expenses of $554,637 or 0.45% of its total labour cost.

Although not only an issue for nursing, there also appears to be significant spending on call back. Overall, WHCC had callback of $554,637 or 0.45% of total labour cost in 2003/04. Callbacks are often used for after hours diagnostic testing, for after hours procedures, to do transport within or outside the region or to fill positions while regular staff are transporting a patient.

The Corporation should develop guidelines to better control and ultimately reduce the use and cost of call back. It is recommended that call back initially be reduced by 20%, which would provide an annual savings, in Nursing, of approximately $23,000.

Recommendations:

It is recommended that:

(78) The Chief Nursing Officer and Chief of Staff should develop guidelines to control the use of callback.

(79) The Chief Nursing Officer should ensure that implementation of nursing callback guidelines

reduces expenditure by 20% from spending on nursing callback in 2003/04.

6.1.2 Patient Escort

The Department of Health has set guidelines outlining who can transport/escort patients. The guidelines are followed in order to ensure payment. However, these guidelines constrain the ability of the Region to use escorts appropriate to the actual need/acuity of the patient. It appears that, for the most part, RNs are used even when the patient condition may not warrant that level of support.

There should be guidelines by patient condition regarding the type of accompaniment that will be used. The physicians should be actively involved in the development of these standards as there appears to be variation of practice among the physician groups as well in the type of escort that is being used. The region/province should give more consideration to the appropriate use of LPNs and paramedics for transfers in place of RNs.

Recommendations:

It is recommended that:

(80) **The Department of Health and Community Services should revise its transport/escort guidelines such that care requirements determine who accompanies the patient.**

(81) **The Chief of Staff and the Chief Nursing Officer should develop and implement guidelines for assigning staff to patient escort based on patient need and acuity.**

6.1.3 Constant Observation

The use of 'Constant Observation' is an issue affecting all acute care sites and occasionally the LTC sites. Use of 'Constant Observation' is having a significant impact on the cost of operations. There appears to be a significant use of constant observation beyond mental health patients. There are no standards or guidelines for the use of constant observation. When the policy of 'least restraint' was introduced there was a significant increase in the amount of constant observation used across the Corporation.

- The nursing services have been working on reducing the use of Constant Observation and costs have decreased in 03/04 from 02/03.
- In the past 'sitters' have generally been LPNs; the type of staff used for constant observation could be changed to reduce this cost.
- 'Wander-guard' mechanisms have been put in place on appropriate care areas.

In most medical/surgical areas in other jurisdictions, the decision regarding whether or not to use constant observation is a nursing decision. This policy was taken to the RMAC and rejected. The use of constant observation appears to be frequently driven by physician orders even though a nursing assessment would not indicate that it is necessary. The Corporation needs to develop standards and guidelines to guide decision-making for the use of constant observation.

Recommendations:

It is recommended that:

(82) The Chief of Staff and the Chief Nursing Officer should establish and maintain standards and guidelines for the use of constant observation.

(83) The RMAC should reconsider its decision that constant care is a medical rather than a nursing decision.

6.1.4 *Workload Measurement System*

There is concern across all areas that have acute care beds regarding the lack of a workload measurement system for use in determining required staffing levels in relation to patient care requirements. There is a need to have a system that can reflect changes in acuity. The organization used to have GRASP in place but it was not considered valid and has not been used in some time. The current approach to staffing is the application of the Department of Health guidelines on HPPD which are driven by the number of patients, but not their acuity or clinical characteristics. The issue of workload measurement appears to be a provincial concern as well. The CNO is working on a provincial committee addressing this issue.

Recommendation:

It is recommended that:

(84) The CNO should acquire or develop an appropriate workload measurement system for use at WHCC.

6.2 Western Memorial Regional Hospital Nursing

6.2.1 Overview

Western Memorial Regional Hospital (WMRH), located in Corner Brook, is the referral centre for the Western Region, providing the majority of secondary care services for the population base.

The Hospital has 178 designated beds. On April 1, 2003 there were 190 beds staffed and in operation (178 acute beds and 12 ALC beds). A summary of the patient care units as they were presented and observed during the site visits is provided in the table that follows. The number of beds presented here (reflecting the April 1, 2003 distribution) varies slightly from the number reported as staffed and in operation to DOHCS.

Exhibit 6.1
WMRH Beds by Service

	Unit	Bed #	Service	Occupancy March 03 /April 04
LEVEL 4	4A	24	Urology & General Surgery	97.3%
	4B	8	Medicine Overflow	
	4CD	23 + 2 Emergency Beds	Mental Health	100.2
	ICU	12 Bed Unit + 2 Bed Overflow. 8 Beds Currently Open.	Medicine Surgery Paediatrics	103.3
	Renal Dialysis	12 Stations	Hemodialysis PD Program Progressive Renal Insufficiency Clinic Post Transplant Workup	
LEVEL 3	3A	28	HS Ventilation Cardiac Rehab General Medicine Pre & Post Pacemaker Care	95.7
	3B	28	General Medicine, Chemotherapy, CAPD	98.6
	3C	8	Palliative Care	75.9
	3D	12	Alternate Level of Care: Clients awaiting other services, such as, Long Term Care, Personal Care Homes. Most clients medically discharged.	
LEVEL 2	2C	15	Gynecology & General Surgery	93.3
	2D	17	Orthopedics, ENT, & General Surgery	91.9
	OR	6 available OR's 4 OR's Sept - July 3 OR's July - Sept	Dental Surgery, Ophthalmology, ENT, Orthopedics, Urology, Gynecology, General Surgery, Cardiovascular, Pacemaker Insertions	5257/year MOR 105/year Case Room
	PORR	12	As Above	4399/year
	Day Surgery	8	As Above	2802/year
LEVEL 1	1AB	11	Family Centered Care	63
	1CD	12	Paediatrics	68.4
	SDAC / PAC	9	Same Day Admission Surgery & Pre Admission Clinic	1778/yr PAC 1345/yr SDAS
GROUND LEVEL	EMERG			Total Visits ED: 23468 Clinic Non ER : 17413 Total: 40881
	OutPatient Non ER Clinic	Hours 1800-2200 M-F 1000-2200 S/S		
	Ambulance Dept.	Emergency Ambulance Service for Corner Brook and surrounding towns.		
	OPD / Procedure Rm	3 Procedure Rms.	Endoscopy, Minor OR, Urology/Gyne	See Attached
	OPD/RR	9 Stretchers	Medical Day Care Radiology Pre & Post Procedure Room Patients	See Attached
	Pain Control Clinic	2 Stretcher Spaces allocated from the 9 stretchers above in OPD/RR	Pain Control	384/yr
	Home Care Clinic		Change Dressings/Drains, etc., for Outpatients	3565/yr (excludes Ortho Clinic patients)
	Ortho Clinic		Assists Orthopedic Surgeons, Casting, etc., for inpatients/outpatients	7470/yr (excludes inpatients)

6.2.2 Issues in Management & Operations

6.2.2.1 Bed Utilization

Use of over-flow beds is a significant issue.

Use of "overflow beds" is a very significant issue for this organization. The administrative/nursing leadership appears to have very little ability or influence to address the situation.

The over-utilization of beds appears to be the result of a physician driven system within the organization.

The analysis of clinical efficiency indicates that some areas of the WMRH site are experiencing occupancy rates above 100%. It was reported during the site visits that beds are opened to accommodate patients waiting in the ER or to accommodate an elective admission often at the insistence of the attending physician[47]. Analysis of admission during periods of high occupancy could be undertaken to identify opportunities for improvement in specific clinical services.

There are over-flow beds and off –service patients spread throughout the hospital. This places tremendous pressure on the nursing organization to respond to the care demands of patients. It results in:

- multiple internal transfers – up to 35/day
- increase in patient/family dissatisfaction because of the frequent moving
- back-log in PARR
- increase length of stay in ICU
- issues of admissions late in the evening
- inefficient use of staff in small care units because of the need for minimum levels of staffing
- excessive workload for the nursing staff on units that are more than 100% occupied.

It was reported during the site visit that a number of initiatives have been undertaken to address these issues over the past, but all have met significant resistance from the medical staff. There is no ability to be able to control admissions. It was reported during the site visits to at least 2 of the consultants that cancellation of elective surgery is infrequent even though there is a shortage of beds.

It was reported that even when there are no beds available, elective surgery is seldom cancelled. Surgeons are booking major cases in the OR when there is a good likelihood that a critical care bed will be required but without first arranging for the bed. There appears to be no mechanism to control the inflow of patients to the OR and as a result there are frequent back-ups in the PARR because beds are not available on the nursing units. A more complete discussion regarding this issue can be found in the departmental report on the OR.

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[47] Additionally, the hospital has opened unfunded beds to care for ALC patients. The hospital reports that "until these beds were opened elective surgeries were regularly cancelled. WHCC felt that this situation could not be maintained and retain a surgical program and meet the surgical needs of the communities."

New admission/discharge coordinator in place to facilitate flow.

The Hospital recently put an admission/discharge coordinator in place to facilitate the flow of patients across the hospital. Previously, each Assistant Director of Nursing (ADN) did this function on a one week rotating basis in addition to managing their units. The Chiefs of Disciplines are to act as advisors to this role but there appears to be no policies regarding utilization monitoring.

6.2.2.2 Alternate Level of Care

It was reported during the site visits that there are a significant number of Alternate Level of Care (ALC) patients in the facility. Until recently, the organization has been under-reporting ALC.

There are patients occupying acute medical beds who clearly have ALC requirements, but who have not been declared ALC. There is a perception that physicians do not use ALC as they, incorrectly, fear that will automatically place the burden of co-payment on the family. Improved physician identification of medically discharged patients would enhance the ability of the region to identify its long term care requirements.

LTC beds in Corner Brook have limitations on their use because of facility deficiencies.

Managers in the acute setting reported that it was often difficult to access to LTC beds in Corner Brook. During the onsite visits we observed that the LTC beds in Corner Brook have limitations on their use because of facility deficiencies.

There have also been issues of process between Acute and LTC. There is currently a working group struck to streamline and improve the process of discharging patients from acute to long-term care. The organization is encouraged to support and implement process changes as soon as possible to facilitate the decrease in the number of ALC patients in acute care.

There are also issues associated with the policy of "1st available bed". Work has been occurring on implementing such a policy but it has not moved forward as yet. If this policy or something that could achieve a similar result were implemented there would be some reduction of ALC in the acute care setting.

The average wait time in 2003/04 of 89 days in the region for permanent placement is higher than the provincial target of 69 days (to be achieved by 2007) established in the provincial strategic plan "Healthier Together". The wait time in Corner Brook was 107 days in 2003/04.

ALC patients should be clustered.

These ALC patients would be better served if they were clustered in a more appropriate environment and an appropriate level and skill of nursing staff were assigned to them. There are a number of options for co-location of ALC patients. Expansion of the current 12 bed unit to 18 beds is underway but this will not fully address the issue. Consideration could be given to the creation of an ALC capacity at the Sir Thomas Roddick Hospital in Stephenville.

The organization has also begun exploring a partnership arrangement with a Level I home. If arrangements could be made with this facility to ensure an adequate level of staffing for the ALC patients, this also may help to relieve the bed pressure at WMRH.

Recommendations:

It is recommended that:

(85) The CEO and the VP-Medical Services should eliminate the use of overflow beds.

(86) The CEO and the VP-Medical Services should develop and implement a plan to co-locate WMRH ALC patients in a single nursing unit.

6.2.2.3 Community Services to Support Discharge

There were issues reported related to a perceived lack of resources in community services to support early discharge. These resources are important to support the attainment of clinical efficiency targets. If patients require BID dressing changes, assistance with ambulation etc. they are kept in hospital because there is little/no support available from community services. There is a dressing clinic but it appears much of the activity in this clinic could be managed in the physician's office; it does not seem to be providing the more complex treatments that are keeping patients in hospital.

A medical day care in the hospital does provide support for administration of IV antibiotics so patients are not kept in hospital.

6.2.2.4 *Professional Practices Issues*

There are a number of professional practice issues that impact nursing services and can be discussed as part of the approach to professional practice:

Currently, most of the patient care units use a team nursing model. However, the lines of accountability for patient care are unclear in this model. The role and scope of practice of the LPN is limited within the team model; they should be enhanced.

There is a desire to move to Total Patient Care (TPC) at WMRH. As part of the movement toward this model of care, there has been a pilot of TPC on a unit at the WMRH. Many organizations use this model of care delivery as it improves continuity of care and reduction in a perception of nurses' job pressure.[48]

The Hospital is strongly encouraged to move toward this model by:

- Clarifying the role of the RN in the TPC model
- Supporting LPNs to function to the full scope of their practice. It is not necessary to wait for renovations to the physical environment on nursing units to improve the scope of practice of the LPN.
- Implementing the initiatives identified by the project team looking at the nursing care model.

Recommendation:

It is recommended that:

(87) **The VP Clinical Operations, the CNO, and the Director of Nursing for WMRH should advance the implementation of a model of total patient care on the inpatient units at WMRH.**

6.2.2.5 *Current Nursing Structure*

There should be a separate position of Chief Nursing Officer for the Corporation.

As noted earlier in this report in the section on nursing services management in the region, there is a need for a separate position of Chief Nursing Officer for the Corporation.

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[48] McGillis Hall, Linda, & Irvine Doran, Diane, Study of the Impact of Nursing Staff Mix Models and Organizational Change Strategies on Patient, System and Nurse Outcomes. Canadian Health Services Research Foundation, March 2001.

Also, interviewees in this process expressed a concern that there is not a nurse on the senior team from the Corner Brook sites. Although the VP Clinical Operations represents nursing operations, there is a perception that because there is not a "nurse" to speak to the issues not all appropriate issues may be given adequate consideration in any discussions at the senior team concerning operations in Corner Brook

There is inadequate support for the ADN role.

The ADN role is essentially that of a front-line patient care manager of 2 or more patient care areas. Concern was expressed regarding this span of control and the current pressures on this role. This is not an uncommon structure and is seen in other organizations. However, there does not appear to be enough supports for this role in the form of clinical education/practice supports or clerical support.

There is limited clerical support available to the ADN to support the work the ADNs. This includes assignments related to Board and facility management such planning for facility changes, etc. The ADNs, together with the PCC are also often responsible for staff education on the nursing units. It is not common in other hospitals for managers to be responsible for delivering education on the unit. There is usually education support in the form of an educator shared across units, or some other level of advanced practice nursing role to support education of staff.

The organization should ensure the appropriate resources are provided to support these front-line managers so that they can assist the staff appropriately in the delivery of quality care and contribute to improvements in organizational efficiency.

The authority of the PCC role to act should be recognized by the organization.

There has been discussion regarding the role of the PCC and the fact that these positions are union and not management. The role of the PCC is to provide consistent coordination of day-to-day clinical activity on the patient care units. When these positions were implemented staff received these positions based on seniority. There was no ability to select based on experience in this type of role or suitability for the role. There is no rotation through the position.

The question is whether or not these positions should be union positions. In many organizations, these positions are part of the bargaining unit. As a result we believe that it should not be necessary for WMRH to change these to be administrative positions to fulfill the current role. However, were there to be a change in the work of this role, for example, taking responsibility for performance management, then perhaps they should become exempt positions.

It appears issues are more related to variation in performance across the organization. Clear expectations should be established and performance monitored. The organization should work with the bargaining unit to establish a process to ensure the best candidate is in the position.

There are also issues with respect to lack of understanding by managers/supervisors in support service areas regarding the role of the PCC. Often ADNs are required to have communication with the departments because the manager/supervisor does not see the PCC has having responsibility for managing issues. Requisitions for maintenance done by the PCC are not responded to and the ADN must be involved.

This may be the result of the traditional or hierarchical nature of the organization. There is a need to ensure managers throughout the organization are aware of and accommodate the PCCs role. ADN should not be required to confirm appropriate initiatives of the PCCs.

There is insufficient professional support for nurses and for nursing care.

Currently the centralized education resources provide support for orientation, organization-wide initiatives, etc. There are 3 educators who are part of the regional education department. These educators provide general hospital orientation. It was reported that there are no nursing educators in the clinical areas to support education of staff regarding specific clinical/procedures changes, etc. If changes involve new equipment, training is usually obtained from the supplier. Education on the patient care units regarding any new procedure, policy, or practice, is currently primarily provided by the PCC and/or ADN. For an organization of this size there should be more resources available at the clinical level to ensure quality and consistency of care and practice.

As noted earlier, there is only one position for professional practice for nursing. This role is focused on policies and procedures across the region and it is seen as an important support. However, because the position is not located in Corner Brook there is a perception of limited access to staff at WMRH.

There are limited mechanisms for the local nursing advisory committee to affect practice at WMRH.

There is a local nursing advisory committee to support the development of nursing practice. However, there is often lack of communication between this council and program teams and no clear responsibility for the development and approval of policies, procedures or for those changes that may affect nursing practice.

Recommendations:

It is recommended that:

(88) The VP Clinical Operations and the Director of Nursing should improve the understanding and acceptance of the authority and responsibility of the PCC.

(89) The VP Clinical Operations and the Director of Nursing should ensure adequate clinical education/practice support for the ADNs.

6.2.2.6 Central Scheduling/Staffing

There is a centralized scheduling/staffing office that manages the staffing and scheduling activities and the float pool for nursing. The Staffing Office currently reports to Human Resources. This reporting relationship is not common in hospitals across Canada. In most circumstances where there is a staffing office, we find that it reports within the nursing structure. This is seen to ensure effectiveness in communication and efficiency of operations. When there are issues and/or a need to make changes to processes/policies regarding staffing or staffing office functions, the nursing leaders need to involve another department rather than being able to implement the appropriate steps themselves. The separation of this responsibility from nursing limits its ability to respond to the needs of nursing and makes changes in staffing policy more cumbersome to implement. If strong communication processes are in place the current structure can provide the support required. We believe this function should be examined to determine the most effective reporting structure.

There is a centralized float pool that provides services for all units and is a centralized resource. Staff on the float pool are oriented to and able to support at least 2 nursing areas.

6.2.2.7 Basic Unit Space and Equipment Issues

There are some significant concerns regarding basic space and equipment for providing care. The units are basically built in a modified Friesen design. A number of them are so small as to be inherently inefficient. Even the larger units of 28 beds are less than an ideal size for efficiency of staffing.

Some of the spatial deficiencies of these areas cannot be fixed without major renovation. Redesign of a number of units has occurred in the past 2 years and will be implemented in the future to alleviate some of the inefficiencies of the patient care units.

There are inadequate storage facilities on the units for the type of supporting equipment currently used in the delivery of patient care. In addition, there is no workspace/nursing station, other than in corridors, for documentation and reporting. This raises concerns regarding confidentiality.

It was reported and observed during the site visit that there appears to be inadequate investment in basic equipment such as electric thermometers, blood pressure machines, geri-chairs etc. There are still a number of manual beds in the facility and most of these are in medicine where there are often the heaviest care and most frail patients. This area also has the highest rate of staff injury. These beds may have been put into use because of the creation of "overflow beds", but there use creates significant problems for the delivery of nursing care. It also puts nurses at greater risk for workplace injuries.

There is a perception among the nursing managers that there does not seem to be an effective process for involving nursing in equipment decisions. Examples that were provided during the site visit included the acquisition of PCA pumps, wheelchairs, etc. and that these items arrive on the units with no provision for orientation/education of nursing staff.

There is a published process for the assessment of equipment needs through Local Nursing Advisory Councils with further assessment at the Regional Advisory Council with decisions occurring at the Senior Team. However, whatever this process is, it is not well understood at the front-line management level. There is a great deal of frustration with the challenges of supplies and or equipment arriving on the units that managers and staff know nothing about.

Recommendations:

It is recommended that:

(90) The VP Clinical Operations should ensure that nursing is provided with the basic equipment for nursing care.

(91) The VP Clinical Operations should replace the manual beds in the medical program as soon as feasible.

(92) The VP Clinical Operations should ensure that nursing input is included in equipment acquisition decisions affecting nursing care.

(93) The VP Clinical Operations should ensure that there is adequate orientation to and training in the use of new equipment.

(94) The CEO should initiate a process to plan for and implement renovations of WMRH nursing units to provide for improvements in the efficiency and quality of nursing care.

6.2.2.8 Services That Support Patient Care Units

Several issues were identified regarding support services that impact the ability of nursing to coordinate and deliver patient care. Many of these relate to the administrative structure and communication problems referred to earlier.

- Housekeeping:

  This is a centralized resource. Housekeepers carry pagers but it is reported they are hard to find and to get to respond to calls. The organization has recently put an on-site supervisor in place to help address these issues. Cleaning of beds after hours continues to be a major issue and it is difficult to get cleaning of space such as shelves in specialized areas.

- Laundry:

  This service appears to have been a problem for a number of years, particularly on Monday. Laundry is a 5 day/week service and the service is unable to meet the needs for laundry on the 7th day. Often the PCC must get the ADN involved to solve the problem. Nursing reports that it is not being involved in decisions regarding quotas etc.

Recommendation:

It is recommended that:

(95) The VP Corporate Services, Regional Director of Environmental Services working with the VP Clinical Operations and Director of Nursing should

review and redesign work processes for laundry services to improve support for the patient care units.

6.2.3 *Medical Inpatient Services*

The Medicine Program provides primary and secondary care to medical patients from Corner Brook and those referred in from rest of the Western Region. The secondary services include Cardiology, Gastroenterology, Nephrology, Respirology, Neurology, and Rheumatology.

The Medicine Program is comprised of 56 beds located on two nursing units. The program however expands when required into other services, i.e. overflow beds on surgical units. The total bed occupancy rate for the medicine program was reported during the site visit as 129% in 2002/03 and has averaged 126% in 2003/04.

6.2.3.1 Unit 3A

3A is a 28-bed general medicine unit that includes the following mix of patients:

- Cardiology including patients awaiting transfer to St. John's for cardiac catheterization
- Cardiac Rehabilitation Education Program – it was reported during the site visit that this includes standardized 4 and 6 day protocols and education
- HS Ventilation (for 2 patients on home ventilation who are admitted at night)
- Pre & Post-op Pacemaker Care

6.2.3.2 Unit 3B

3B is a 28-bed general medicine unit that includes the following mix of patients:

- General Medicine
- Chemotherapy
- Peritoneal Dialysis
- ALC and complex continuing care patients who have not been designated ALC. On average there are 6-8 ALC patients on this unit at all times.

6.2.3.3 Unit 3D

3D is a 12 bed ALC unit opened as a temporary unit 2 years ago and still does not have permanent staff assigned.

Patients on this unit are either medically discharged and waiting placement to Long Term Care or personal care home or not medically discharged and waiting for rehab, home supports, etc. This unit is not large enough to accommodate all of the ALC patients that are usually in the Hospital at any one time.

This is a small unit that is inefficient and expensive to operate. The quality of care is a concern related to:

- Lack of consistent staffing. Generally, staff from the float pool are assigned to this unit.
- Lack of Equipment such as Geri chairs to get patients up daily.
- Lack of services such as Recreation Therapy, and Physiotherapy
- Lack of space for a common/central area.

Patients have been in this unit for an extended period of time without a long-term plan. Work is happening to improve the plan for these patients.

6.2.3.4 4B Overflow

4B is an 8 bed unit opened as a temporary measure (it closes at Christmas and during the summer). The types of patients on this unit include those with COPD, PVD, Multiple Myeloma, Liver Failure, Diabetes out of control, etc.

This is a small unit and is very inefficient and expensive to operate. Minimum staffing must be maintained. In addition, quality of care and quality of work life are a concern:

- No continuity of nursing care as staff (usually from the float pool) are booked but then moved to other areas.
- This unit appears to have only manual beds and most of the patients are heavy care patients.

As noted earlier, all overflow beds should be removed as soon as possible from the system.

Recommendation:

It is recommended that:

(96) The CEO and the VP-Medical Services should close 4B as soon as possible.

Workload information provided by the corporation for the inpatient medicine program, excluding renal, is shown in the following exhibit.

Exhibit 6.2
Medical Inpatient Services – Patient Days & FTE[49]s

	2002/03	2003/04
Total Patient Days	24,946	26,480
Total Worked Hours	140,609	147,630
FTE	91.82	94.40

6.2.3.5 *Productivity and Staffing*

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.3
Medical Inpatient Services - Productivity[50]

	2002/03	2003/04
Wkd Hr/Pt Day	5.64	5.58
var NL non-drug $/Pt Day	$ 9.50	$ 9.68

Exhibit 6.4
Medical Inpatient Services Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	17	4.52	5.25	5.85	5.52
var NL non-drug $/Pt Day	17	$ 9.80	$ 11.12	$ 15.57	$ 13.00

Every effort must be made to eliminate the overflow beds that cause significant problems for efficient staffing. The physical space makes it almost impossible for this program to achieve best quartile performance.

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[49] FTE (Full Time Equivalent) = (Worked Hours + Benefit Hours) / 1950

[50] var NL non-drug $ = Variable non-labour non-drug costs. These are basically supplies costs excluding drugs. Equipment depreciation, leasing, and maintenance costs are also excluded.

To accommodate for the challenges of the physical environment it is recommended that the mean performance of 5.52 worked hours per patient day be used as the performance target for this program as a whole. The service is currently achieving close to the mean performance level. Given the number of small units, the larger units are probably already performing more efficiently than this target.

Recommendation:

It is recommended that:

(97) The Director of Nursing should adjust staffing on the medical units at WMRH to achieve nursing productivity of 5.52 worked hours per patient day.

6.2.4 *Surgical Services*

The discussion of surgical services is provided in the following key areas:

- Surgical service/specialty description
- Facilities and Equipment
- Booking Processes
- Urgent and After-hours Surgery
- OR Utilization
- Discharge Processes
- Surgical Service Departments – PAC/SDAS, OR, PARR, Endoscopy, Surgical Inpatient Units

6.2.4.1 Surgical Service/Specialty Description

WMRH is the main referral and treatment centre for surgery for the western region of the Province. The following services are available from a combination of salaried and fee for service (FFS) surgeons:

- General Surgery with vascular, plastic and limited thoracic surgery provided
- Orthopaedic Surgery including arthroplasty, general orthopaedics and spinal surgery

- ENT surgery[51]
- Ophthalmologic Surgery[52]
- Gynaecologic Surgery (and Obstetrics)
- Urologic Surgery (but the current urologist plans to leave the Province in August)

Staff retention has been a challenge as evidenced by urology. Recruitment is equally difficult. Locums for some disciplines like anaesthesia also have been particularly difficult to recruit.

6.2.4.2 Facilities

There are 5 ORs and 1 Orthopaedic room in the main Surgical Suite. There is a separate case room and labour and delivery area for delivery and C–sections. The hospital operates four of the ORs when there is sufficient anaesthesia coverage.

The surgical program reports that it suffers from equipment shortages. The monitors and lights are antiquated.

6.2.4.3 Booking Processes

Hospital ORs are generally booked to capacity. Late starting times, overtime procedures, and over booking are major issues that have a significant adverse effect on efficiency.

The chaotic booking practices have led to a general decline in discipline in the Department of Surgery. The rules for booking and scheduling cases are applied irregularly. There is no authority to enforce the rules; or no one with authority is enforcing the rules. And the rules are inadequate.

Bed availability has not been a consideration in booking procedures.

The booking and utilization of the surgical inpatient beds has been very poor. There has been no consistent coordination of patient care across each surgical service. Bed availability has not been a consideration in scheduling of surgery and admitting patients for procedures. As a result, post-operative patients often are held in the PARR waiting for a patient to be discharged.

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[51] There is one salaried and one FFS physician. There appears to be insufficient publicly funded audiology so many patients must use the private sector or have very long waits.

[52] This service is functioning well with excellent cooperation between STRH & WMRH. It is a small source of revenue to the WMRH.

Intensive care beds are not pre-booked.

Especially troublesome is that the surgeons are not considering and ensuring the availability of an intensive care beds when scheduling and performing surgeries that will require the patient to be admitted to the ICU postoperatively. The Chief of Surgery should ensure a process whereby the operating surgeon performing a procedure that usually requires ICU support post operatively must clear the availability of an ICU bed with the charge nurse of the ICU before starting the case.

A set number of beds should be reserved for emergency surgeries, the remainder should be available to accommodate elective surgical cases.

In developing booking and scheduling processes, a mechanism must be in place to deal with a patient that develops a complication that delays discharge beyond an expected date of discharge and therefore causes a shortage of beds to care for the scheduled surgeries. Addressing this issue can be straight forward. If a patient cannot be discharged, the patient is moved to another bed that is normally used for emergencies. To start such a program it would be reasonable to assign a certain percentage of the surgical beds on each unit for elective (booked) cases and the remainder for emergencies. If there were sufficient volume of emergency cases, a specific ward could be set up to deal with these non-elective cases.

Surgeons should be ensuring the availability of clinical support services for their patients.

Patients are spending less time in the hospital and more care is being delivered on an ambulatory basis. This requires planning well in advance of any surgical intervention so that the care can be continuous, seamless and appropriate. Therefore, it is imperative that the various clinical support services be informed ahead of time in order to prepare for the delivery of the appropriate service in a timely fashion.

Lack of clear rules for booking elective surgery.

At the present time there are no clear rules being followed with respect to booking elective surgery. The lists are not available till the day before the surgery and are frequently changed during the evening hours. The last minute changes have made it impossible to organize staffing, and instruments ahead of time.

Last minute booking of unprepared patients has been a serious problem at the WMRH.

As noted above, frequently the OR list is changed the night before surgery. The impact of this results in:

- Confusion, delays and inefficiencies,
- Increased risk of errors,
- The instruments are not ready because of the changes,
- Delays in the start of surgery because the necessary documentation and investigation is not available.

Estimates of procedure times are not accurate.

There has been a consistent pattern, by some individual surgeons, of booking more procedures than time will allow. This has led to significant overtime expense and delays in doing urgent cases. Bookings have been arranged so that the longest case is scheduled in such a fashion that it will not be cancelled and yet it is clear at the time of booking that it will not be finished in the allotted time. This is irresponsible because it causes expense not only in the OR but also in the PARR. And, it can result in delays in starting emergent cases.

Recommended Booking Processes

There are a number of basic practices related to surgical booking that should be implemented at WMRH:

- The Chief of Surgery, with operational support from the VP Clinical Operations, should ensure elective surgical bookings are closed 5 days before the date of surgery[53]
- Each booking for surgery should include the following elements at a minimum:
  - name, address
  - hospital ID No.
  - date of surgery
  - surgical procedure
  - estimated duration of the procedure
  - preferred anaesthesia
  - laboratory investigation
  - consultation requests
  - additional information desired in the OR (e.g.: x-rays)
  - operating surgeon
  - referring physician
  - date of discharge
  - history & physical or consultation note of the surgeon
  - signed consent form

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[53] In instances where some surgeons are unable to fill their blocks within the period allowed for scheduling cases, the concept of a Wait List has been very effective. A "Wait List" can be established by the booking office to accept the names of patients that are ready for surgery but do not have an assigned time. Any unassigned time will be offered to surgeons that have placed patients on the "Wait List". The time is to be offered to the surgeons in chronological order from that list at noon on the 5th day before the date of surgery.

- The Director of Nursing should ensure a process where all patients that are booked for surgery have their medical record checked for completeness 5 days before surgery. If there are any deficiencies, the surgeon shall be notified to correct the deficiencies or reschedule the patient.
- The VP Clinical Operations should ensure a process that notifies and books ancillary support services that are required after the surgical procedure.
- The VP-Medical Services and the Director of Nursing should establish a process in which the OR list is examined by the PCC to ensure that:
  - There is sufficient time in the block to complete the list
  - The order of the cases is appropriate
- The PCC should have authority to modify the schedule and inform the surgeon of the need to reduce or reorder the list.
- Disputes should be mediated by the Chief of Surgery & the VP-Medical Services.
- The Chief of Surgery and the VP Clinical Operations should establish and monitor a 'waitlist' process.
- Unfilled spaces in a surgical block will be made available to surgeons with patients on the wait list.
- Surgery should be initiated only if an appropriate bed is available.

It is absolutely essential to establish a monitoring system that includes:

- Evaluation of the appropriateness of admission of each surgical patient according to diagnosis with daily reports to the Chief of Surgery and a monthly report to the RMAC.
- Compliance with OR booking policies and procedures with a weekly report to the Chief of Surgery and a monthly report to the RMAC and Senior Management Team.

Together with a monitoring system there must be consequences for physicians that do not comply, particularly with the booking policies.

Recommendation:

It is recommended that:

(98) **The VP Medical Services should establish and implement an improved process for booking and scheduling surgical procedures.**

6.2.4.4 Urgent & Emergency after hours surgery

The first case of the day is almost invariably started late because the anaesthetist is waiting for the surgeon or the surgeon is waiting for the anaesthetist. And surgeons routinely exceed their allotted times, delaying the next block or the beginning of urgent cases. The overruns in the regularly scheduled surgery are causing delays to the start of the urgent surgery[54].

Many of the surgeries being performed on evenings and weekends are not urgent or emergent procedures.

But, many of the surgeries being performed on evenings and weekends are for booked cases; they are not urgent or emergent procedures. This has caused a major and unnecessary use of overtime, has put undue stress on the nursing staff and is a cause of unnecessary spending by the Corporation.

It was reported during the onsite visits that tactics of intimidation have been used to force these extra cases to be done. There do not appear to be any criteria for defining what is urgent and emergent and what should be deferred until there is room in the surgeon's schedule.

In order to control the inappropriate use of the ORs for non-urgent cases on weekends, the Corporation will need to:

- Better control the availability and use of nursing staff.
- Defining criteria for determining whether a case is emergent or urgent requiring access to ORs after hours.
- Develop and implement policies and procedures for limiting access to ORs after hours to only emergent and urgent cases.

Since all surgical procedures on the weekend should be urgent or emergent, most will be coming from the Emergency Department. Assuming sufficient volumes of truly urgent and emergent cases, the corporation should first address scheduling of nursing staff. There should be sufficient staff on site for the afternoon shift to staff the expected volume of urgent and emergent cases. Most patients arrive in the emergency after noon and take time to be prepared for an operation and therefore typically are not ready for surgery until later in the day. Nursing staff should be on call to the OR and PAR for night shifts and for day and night shifts on Saturday, Sunday and holidays.

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[54] This was confirmed through data review.

Strict criteria for the definition of emergent, urgent & semi-urgent types of cases should be established, implemented and used to control access to the ORs on nights and weekends. The HCCSJ has guidelines that could be used by WMRH as a guide:

- An emergent case is one that is life threatening or limb threatening requiring immediate intervention e.g., ruptured aneurysm or fetal distress.
- An urgent case requires intervention within 4-6 hours otherwise significant clinical deterioration might ensue e.g., compound fracture or acute appendicitis.
- A semi-urgent case requires intervention in less than 24 hrs e.g., fractured hip or gallstone pancreatitis. (See HCCSJ – Guidelines for Booking Emergency Surgery)

Urgent and semi-urgent cases must be done before 11:30 pm. Emergent cases can be done anytime and warrant calling in staff if necessary.

The VP-Medical Services and the Assistant Director of Nursing–Perioperative Program should establish a monitoring system to monitor the overruns in booked surgery and the after hours surgery. These data should be reported to the OR Committee and to the MAC on a monthly basis.

Recommendations:

It is recommended that:

(99) The VP Medical Services and the Chief of Surgery should establish definitions for the types of cases that may have access to the ORs at WMRH for after hours surgery.

(100) The VP Medical Services should establish policies and procedures for controlling after hours access to the ORs at WMRH.

(101) The VP Medical Services should establish a process for monitoring, reporting and enforcing the after-hours surgery rules at WMRH.

(102) The Chief of Surgery should ensure that the after hours surgery rules at WMRH are enforced.

6.2.4.5 Overtime in ORs and PARR

As has been discussed inadequate controls in the booking process and misuse of after hours and weekend surgery has caused a significant amount of overtime in the ORs at WMRH:

- In 2002/03 3.73% of total worked hours in the ORs and 3.77% of total worked salaries for the ORs were devoted to overtime.
- In 2003/04 the situation deteriorated further, 6.13% of total worked hours in the ORs and 5.75% of total worked salaries for the ORs were devoted to overtime.

This equates to, on average, every FTE in the OR is working 1.5 to 2 hours of overtime every week.

Whereas across all of WHCC:

- In 2002/03 only 1.27% of total worked salaries were devoted to overtime.
- In 2003/04 only 0.92% of total worked salaries were devoted to overtime.

6.2.4.6 Monitoring and Managing OR Utilization

OR time can be wasted if there is no coordination of holiday and vacation time among the various groups that use this facility. OR time will go unused if surgeons go on vacation or holiday without giving others the opportunity to schedule the available time. Perhaps of greater concern, patients will wait unnecessarily for needed surgery. Information about vacations must be provided in advance so that the resource can be reallocated or closed. To date there does not appear to be any incentive to have the surgeons and anaesthetists provide this information in a timely fashion that can enhance the efficiency of the ORs. As a result, this information has not been forthcoming from the surgeons.

An approach that has been successful uses OR block time as a tool for encouraging compliance. Reasonable practice would have more than 85% utilization of an assigned surgical block.

A surgeon in any quarter falling below that level should be informed by letter from the OR Committee that a reassignment of OR time might be required if the deficiency continues.

If the surgeon does not inform the booking office, the Chiefs of Surgery and Anaesthesia and PCC of vacation time in writing 3 weeks before the scheduled time of the vacation the time not used will be considered unused and counted in the utilization statistics. This combination provides the incentive and fairness to achieve the goal of obtaining the necessary information.

The VP-Medical Services with the Patient Care Coordinator should prepare the utilization data and submit it to the Chief of Surgery and the OR Committee on a quarterly basis. The OR Committee should review OR utilization by each surgeon on a quarterly basis.

Recommendation:

It is recommended that:

(103) The OR Committee should review OR utilization by each surgeon on a quarterly basis.

6.2.4.7 Discharge Processes

The discharging of patients from WMRH has not been timely or predictable. The surgeons have discharged the patients at different times of the day and not provided leadership in the discharge planning. It was reported during the site visits, that patients are not being discharged from the surgical units in a timely fashion on the day of discharge. As a result, patients may wait in the PARR an extended time until a bed is vacated. It was reported and observed during the site visits that discharging of patients appears chaotic with no standards established or followed.

The organization does have a policy with respect to 11:00 hour discharge and a process has been developed to increase awareness across the region. It has also implemented a temporary discharge planning manager to assist in the process and improve discharge planning. Even with these efforts problems remain with discharging patients in a timely fashion. At least for surgical patients, it is feasible for discharge orders to be written the day before discharge so that even in the surgeon's absence, the patient can be discharged before 11:00.

Recommendation:

It is recommended that:

(104) The VP-Medical Services should institute a clear discharge policy that requires all surgeons to have their patients discharged by 11:00 am daily.

6.2.4.8 Pre-Admission Clinic (PAC) and Same Day Admission Surgery (SDAS) Unit

This unit is located on Level 1 and has 9 stretchers. It serves as the Pre-admission Clinic (PAC) and the site for the Same Day Admission Surgery (SDAS) program.

Delays in surgery occur before the patient gets to the operating room often because the patient and family have not been educated in what is to be expected. This requires an educational and evaluative process so that each patient is diagnosed and investigated appropriately before surgery. Preparation and investigation of the patient should be carried out in a separate out-patient area before the patient arrives at the hospital on the day of surgery. This requires a consistent comprehensive process that all patients go through, regardless of the surgical procedure. This assures that the patient is informed, documents are available, the ancillary services have been planned and notified, and that the patient is fit for surgery.

There is certain documentation that is required for all procedures and there are investigations and consultations that are required for a particular patient. A properly organized PAC will obviate many of the problems and reduce delays in the ORs.

The health of patients that are going to the OR must be evaluated by the appropriate personnel. It takes time to collate the information and have it ready for examination. The information must be available before the date of surgery. This means that the booking of elective surgery should be in advance of the date of surgery so there is time to correct any deficiencies. The problems with the booking processes at WMRH are addressed above.

Poor pre-admission facilities at WMRH

The facilities at WMRH are not well organized to deal with a proper PAC. There are 9 beds allotted for both the PAC and the Same Day Admission (SDAS) patients.

There are confusion and delays related to PAC and SDAS being in same location.

All "same day admit patients" are currently admitted on the day of surgery through the same unit as the PAC. That is, the nursing staff are performing two different functions on two populations of patients in the same geographical area. This causes confusion that may lead to errors. The Same Day Admission Surgical (SDAS) patients along with all other elective surgical patients should still be processed through the PAC, but on the day of surgery, they should be admitted through another venue.

The staff is coping in this difficult environment, but the likelihood of errors is significant because there are few rules or criteria for scheduling or for organizing the medical record prior to the patient arriving.

There are a number of recommendations related to establishing a separate PAC that include the following:

- The Chief of Anesthesia should ensure an anaesthetist be assigned to the PAC.
- The VP Clinical Operations should ensure ancillary services such as physiotherapy, respiratory therapists are an integral part of the team and available when necessary.
- The Chief of Surgery and the VP Clinical Operations should ensure that all patients having elective surgery at WMRH are seen and evaluated in the PAC not less than 5 days and not more than 30 days prior to surgery.

Recommendation:

It is recommended that:

(105) The VP Clinical Operations should establish the PAC as a stand-alone unit dedicated only to the evaluation and education of patients for surgery.

6.2.4.9 Day Surgery

The Day Surgery Service is provided in an 8-bed unit on Level 2 near the PARR and OR. It provides pre and post-operative nursing care to patients having surgery on an outpatient basis, as well as providing patients/families with education and discharge planning. The unit is staffed from 0700-1800 hours Monday to Friday.

Workload information provided by the corporation for Day Surgery (FC#713402560) is shown in the following exhibit.

Exhibit 6.5
Day Surgery – Visits & FTEs

	2002/03	2003/04
Total Visits	2,853	2,664
Total Worked Hours	9,212	8,635
FTE	5.58	5.00

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per visit (Wkd Hr/Visit). The peer hospital productivity range is also presented for comparison purposes.

Exhibit 6.6
Day Surgery – Productivity

	2002/03	2003/04
Wkd Hr/Visit	3.23	3.24
var NL non-drug $/Visit	$ 3.65	$ 3.32

Exhibit 6.7
Day Surgery – Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	7	1.19	1.86	2.12	1.69
var NL non-drug $/Visit	7	$ 2.97	$ 8.03	$ 8.94	$ 6.05

Staffing on the Same Day Surgery Unit at WMRH should be reduced to achieve nursing productivity of 1.86 worked hours per visit.

This is not an efficient functional centre. Its productivity is worse than the worst quartile performance of its peers. In order to move toward median quartile performance at the current workload, the department needs to examine its staffing levels, hours of operation and/or number of days it provides service annually. Assuming 250 10-hour days of operation the department should be able to achieve the median level of peer performance with the current number of visits. The unit requires a minimum of 2 staff on duty during operating hours.

The Corporation should establish a productivity target of 1.86 worked hour per visit.

Recommendation:

It is recommended that:

(106) The **Director of Nursing should reduce staffing on the Same Day Surgery Unit at WMRH to achieve productivity of 1.86 worked hours per visit**.

6.2.4.10 Operating Room

Department Description and Operations

It was reported during the site visit that there are 6 ORs at WMRH. The organization has been running 4 ORs September to July and 3 ORs July to September.

There are 4 people assigned to cleaning the ORs and equipment between cases. Three nurses are assigned to each OR. This is more nurses assigned to each room than is normally seen in other North American jurisdictions. A common standard is 2.0 to 2.5 staff per room for an OR that handles primarily secondary and some tertiary cases.

Anesthesia shortage

There are 4 anaesthetists that allow for 4 rooms to be in operation when all the anesthetists are available. The anaesthetists also cover the after hours work. This means that they may work the day following a night on-call in which they may have been up the majority of the night. This is not consistent with the Canadian Anaesthesiologist Society guidelines. This suggests that there is shortage of anaesthetists at WMRH.

There is limited space for the holding of patients awaiting surgery. The majority of patients are transported by porter on a stretcher. There is no ability to monitor patients awaiting surgery and there is no privacy.

Improving OR Efficiency

Long turn around times are a constant complaint and are exacerbated by frequent changes of the OR schedule. There are a number of changes in facilities, processes and systems that would improve efficiency of the OR at WMRH.

- The Director of Nursing, Acute Care should investigate and establish methods for patients to ambulate to the ORs and reduce the dependence upon porters for the transport of patients to the OR.
- The VP Clinical Operations should establish a program to replace the OR lights and anaesthetic machines which could include the harvesting of unused machines and equipment at the STRH and LeGrow.
- The Director of Nursing, Acute Care should investigate ways to deploy the cleaning staff in a more efficient fashion.
- The Director of Nursing, Acute Care should deploy the nursing staff more efficiently to conform to commonly accepted standards of staffing per room and per procedure.

- The Director of Nursing, Acute Care and the VP-Medical Services should ensure a process to reconfigure the pre-op holding area to accommodate ambulatory patients so that the patients that do require stretcher transportation can be monitored and have privacy.
- The Chief of Surgery should establish a process that provides the operating surgeon or assistant along with the anaesthetist accompanies/transports the patient to the PARR.
- The Director of Nursing should establish a process to investigate the introduction of a Surgi-lift System for the transportation of patients from the OR and the PARR.
- The Director of Nursing should ensure a process in which the operating schedule is published at least 72 hours before the day of surgery.

Recommendations:

It is recommended that:

(107) The Assistant Director of Nursing Perioperative Program and the Chief of Surgery should establish a process to improve the start time and turn around times.

(108) The VP Medical Services and the Chief of Anaesthesia should develop a manpower plan to recruit sufficient additional anaesthetists to provide staffing for the PAC and to conform with accepted standards for on-call coverage.

(109) The Assistant Director of Nursing Perioperative Program and the Chief of Surgery should ensure implementation of the recommended processes to improve operating efficiencies.

Workload information provided by the corporation for the Operating Room is shown in the following exhibit.

Exhibit 6.8
OR Cases and FTEs

	2002/03	2003/04
Total Cases	4,989	5,257
Total Worked Hours	49,171	50,238
FTE	35.49	33.37

Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient case (Wkd hr/case). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.9
OR Productivity

	2002/03	2003/04
Wkd Hr/Case	9.86	9.56
var NL non-drug $/Case	$ 436.11	$ 443.55

Exhibit 6.10
OR Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Case	15	4.93	5.98	6.28	5.72
var NL non-drug $/Case	15	$ 278.37	$ 285.99	$ 368.33	$ 307.17

As noted earlier, there are significant issues associated with booking practices which impact the efficiency of the OR staff. These issues must be addressed before it will be possible to achieve target performance.

It appears the department is staffing rooms with 3 RNs per room. Normal staffing in other organizations is 2.0 to 2.5 RNs per room with a PCC function. There may also be opportunity for the OR to achieve the target if it examines the role and use of cleaners, who porter patients to PARR etc.

Based on our analysis of the potential for efficiency in the ORs at WMRH we recommend that the productivity target be set at the median performance of the peer hospitals or 5.98 worked hours per case.

It is very important to note that achievement of this productivity target will not be possible until such time as issues associated with booking, OR utilization etc. noted here have been addressed.

Recommendation:

It is recommended that:

(110) The Director of Nursing Acute Care should reduce staffing of the ORs at WMRH to achieve a productivity of 5.98 worked hours per case at such time as the major issues associated with the OR have been addressed.

6.2.4.11 *Post Anesthetic Recovery Room (PARR)*

Department Description and Operations

This is a 12 bed unit that provides nursing care to patients immediately following surgery and/or anaesthesia. This unit has 24 hour coverage, seven (7) days per week for elective and emergency patients.

The overtime, starting times and over-booking in the OR all have significant adverse effects on the PARR. Patients are frequently waiting in the PARR because there is no bed available in ICU or the inpatient surgery units.

Workload information provided by the corporation for the PARR is shown in the following exhibit.

Exhibit 6.11
PARR Cases and FTEs

	2002/03	2003/04
Total Cases	4,637	4,887
Total Worked Hours	16,201	16,878
FTE	10.57	10.46

Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient case (Wkd Hr/case). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.12
Productivity

	2002/03	2003/04
Wkd Hr/Case	3.49	3.45
var NL non-drug $/Case	$ 10.41	$ 12.90

Exhibit 6.13
Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Case	13	1.49	1.84	2.10	1.85
var NL non-drug $/Case	13	$ 2.50	$ 3.72	$ 5.73	$ 4.17

As noted earlier, there are significant issues associated with booking practices that impact the efficiency of the PARR staff. The practice of holding patients in the PARR because of lack of beds also significantly impacts efficiency and requires additional staff resources. These issues must be addressed before it will be possible to significantly improve the efficiency of this unit.

The recommended target is set at median peer performance of 1.84 worked hours per case. It is very important to note that achievement of this productivity target will not be possible until such time as the operational issues associated with the OR and PARR noted here have been addressed.

Recommendation:

It is recommended that:

(111) **The Director of Nursing Acute Care should reduce staffing of the PARR at WMRH to achieve productivity of 1.84 worked hours per case.**

6.2.4.12 Endoscopy & OPD/RR

There are three procedure rooms for endoscopy, minor procedures and urology/gyne procedures.

The endoscopy facilities are inadequate for the population served and there is little privacy. One room for endoscopy is very inefficient without the ability to have staff deployed to perform more than one task at a time. The hospital needs a dedicated unit for endoscopy with two procedure rooms adjoining an equipment cleaning room with an area for registration, waiting and recovery of the patients.

The booking of patients into the OPD/RR is chaotic. There are a wide variety of procedures performed from chemotherapy to post sedation recovery. This is too wide an array of tasks that requires knowledge in too many fields for staff to remain current. The organization should ensure a process to supervise booking practices of the OPD/RR such that bookings into the OPD/RR are restricted to a specific number of cases per day with built- in gaps in the bookings to allow for unexpected length of treatment and urgent cases.

Recommendations:

It is recommended that:

(112) **The VP Clinical Operations should develop and implement plans to redevelop the endoscopy suite at WMRH.**

(113) The Director of Nursing Acute Care should review and revise booking processes for the OPD/RR at WMRH.

6.2.4.13 Inpatient Surgical Unit Operations

4A is a 24 bed general surgery and urology unit.

4A is a 24 bed general surgery and urology unit. It has approximately 97 % occupancy reported during the site visit. This unit often accommodates medicine overflow patients.

A wound classification system has been developed and this unit would accommodate class III and IV which includes those that may be contaminated or have dirty/infected wounds.

Patients cared for on this unit include those with diagnoses of TURP, radical retropubic prostatectomy, nephrectomy, cholecestosectomy, hernia repair, bowel resection, amputation, by-pass graft, etc.

There was a concern expressed that the types of patients on this unit require more intensive nursing care than patients on other units. There is a perception that the medical patients that overflow into this unit are also sicker than those that go to the other surgery units. It was reported that the large number of bed moves and higher care requirements of patients have resulted in many nurses asking to leave this area.

2C is a 15 bed gynecological surgery unit with a reported average occupancy of 93 % during the site visit.

2C is a 15 bed gynecological surgery unit with a reported average occupancy of 93 % during the site visit.

The types of patients cared for on this unit include those with total abdominal hysterectomy, mastectomy, bladder repair, hernia repair, etc. The issue of classification of patients is impacting the placement of patients. Because of close proximity to orthopedic care area there is a policy which states that this unit can only take Class 1 and Class 2 surgeries. This has created excessive bed moves (it has the most bed moves of all the floors).

This unit and the orthopedic unit are small and inefficient to operate. Currently, 1 PCC is shared between Gyne and Ortho but the staff are separate. Consideration should be given to consolidating the staff and centralizing the unit to be more efficient. However, to avoid infection of the orthopaedic patients, they should not be located in the same rooms as gynaecology patients and nurses will need to strictly follow infection control protocols.

2D is a 17 bed orthopedic unit with an average occupancy of 92%.

2D is a 17 bed orthopedic unit with an average occupancy of 92%.

Patients cared for on this unit include those with Hip Replacement, Total-knee Replacement, T & A, FESS, Corneal Transplant, etc.

Physiotherapy services are not routinely available on weekends. These services are only available to patients who meet the criteria for the use of therapists on the weekends. Only new orthopaedic post-operative patients such as TKR, THR or those who require first day ambulation are seen by therapists on the weekends. Therapy coverage on the weekend was reported as being provided as overtime hours for the therapists. Schedules should be developed for therapists that provide for weekend coverage for all patients. And these hours should be treated as regular time.

Workload information provided by the corporation for the inpatient surgical program, including days reported for medical/surgical inpatients, is shown in the following exhibits.

Exhibit 6.14
Surgical Inpatient – Patient Days & FTEs

	2002/03	2003/04
Total Patient Days	18,836	18,442
Total Worked Hours	116,973	120,459
FTE	79.17	81.01

Exhibit 6.15
Medical/Surgical Inpatient – Patient Days & FTEs

	2002/03	2003/04
Total Patient Days	345	289
Total Worked Hours	4,283	4,145
FTE	2.23	2.15

Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.16
Surgical Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	6.21	6.53
var NL non-drug $/Pt Day	$ 17.53	$ 19.79

Exhibit 6.17
Surgical Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	17	5.46	5.78	6.09	6.02
var NL non-drug $/Pt Day	17	$ 12.74	$ 14.02	$ 17.13	$ 15.11

Exhibit 6.18
Medical/Surgical Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	12.41	14.34
var NL non-drug $/Pt Day	$ 17.53	$ 19.79

Exhibit 6.19
Medical/Surgical Productivity

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	6	4.79	5.56	5.69	5.33
var NL non-drug $/Pt Day	6	$ 9.67	$ 12.87	$ 15.44	$ 12.39

There are significant issues with the physical space and the unit sizes that make it almost impossible for this program to achieve best quartile performance of the peer hospitals. Comments on these issues have been made earlier in this report.

Over the next two years the area should be able to achieve the median performance of its peer hospitals and achieve a productivity target of 5.78 worked hours per patient day.

However the median performance of the peer hospitals should be achievable if issues associated with the surgical services noted here have been addressed. Also, as is discussed below, staff reductions will be possible and productivity improvements will be achieved when a short stay surgery unit is developed.

The unit should be able to move half-way to this target within a year, and we expect that the issues addressed here can be addressed and the median peer performance level can be achieved within 2 years.

Thus, the productivity for this area should be improved to achieve an immediate performance target of 6.38 worked hours/patient day. Over the next two years sufficient changes in operations should be implemented to allow the area to achieve the median performance of its peer hospitals and achieve a productivity target of 5.78 worked hours per patient day.

Recommendation:

It is recommended that:

(114) The Director of Nursing Acute Care should adjust operations and staffing of inpatient surgery at WMRH to achieve a productivity target of 5.78 worked hours per patient day over the next two years.

6.2.4.14 Short Stay Surgical Unit

A Surgical Short Stay Unit will provide opportunities to significantly reduce costs of inpatient surgical care.

We believe there may be opportunities to significantly reduce cost if the hospital created a Surgical Short Stay Unit (SSSU). The unit would close on Saturday and open Monday morning. This would save nursing hours. One hospital reports being able to save more than $10,000 per month in staff costs.

The criterion for admission to the SSSU unit as an inpatient would be that the patient must be expected to and be discharged before 10:00 am Saturday morning. The surgical procedure is irrelevant for admission to the unit, the key criterion is expected length of stay. The allowable length of stay could be as long as 5 days if surgery is conducted on a Monday or as short as overnight for surgery on a Friday. A patient that has an unexpected complication that would extend the stay in hospital would be transferred to another surgical unit.

A SSSU that is open from 6:00 am Monday to 10:00 am Saturday could be used to process SDAS patients as well as accommodate short stay surgical patients. Many, if not most of the SDAS patients will be admitted to the SSSU after surgery. The SDAS patients would be admitted to the SSSU, go to the OR and return to the SSSU post-op if they are short stay patients; otherwise they would go to the appropriate unit for longer stay patients.

This approach would align 2 very similar services and take SDAS patients out of the area assigned to PAC. This change would allow the PAC to function more effectively and more efficiently. Staff will be able to concentrate on the evaluation and education of the patients prior to surgery.

Creation of the SSSU will allow nursing to better match staffing to inpatient workload for surgical patients. The census can be predicted with relative certainty because the booking rules will require the slate to be established 5 days in advance and the expected length of stay established for each patient. Nurse staffing can thus be planned in relation to census and anticipated acuity with relative certainty. Acuity will be more predictable because these patients, like all elective surgical patients, would have passed through the PAC.

6.2.5 Intensive Care Unit (ICU)

6.2.5.1 Department Description and Operations

The ICU at WMRH is the Regional Referral Center for Intensive Care. The unit has capacity for 12 beds plus 2 overflow beds. There are 8 beds currently open. Average occupancy in 03/04 for these 8 beds was about 103%. The unit provides services for cardiac, respiratory, surgery, general medicine, orthopedics, trauma and paediatric care

The unit does care for pediatric patients: it will stabilize and transfer them to the Janeway Hospital in St. John's as appropriate.

The ICU does not have negative pressure capability for patient isolation.

There is no negative pressure capability for patient isolation in the ICU. This is a concern for the care of seriously ill patients with contagious respiratory diseases and others.

There is PCC and ward clerk support Monday to Friday for 8 hours each day. Although there is a Medical Director of the Intensive Care Unit, the unit is not closed: all specialists may admit to the units and are responsible for the care of their patients while they are on the unit.

ICU resources should be requested at the time of booking a procedure, and confirmed before initiating the procedure.

As has been discussed, there is a significant problem with the appearance of cases from the OR with no advance notice. Surgeons are booking/starting cases with no advance notice to the ICU or without checking with ICU regarding the availability of a bed. This has created significant staffing problems and put patients and the organization at risk. A system must be established that requires a surgeon to book ICU resources at the time of booking the case and then a check with ICU prior to starting the case to ensure that a bed and staff will be available for the patient when the procedure is completed.

There are 8 telemetry units in the hospital monitored by the ICU staff and this will be increasing to 12 in the autumn of 04 when a new monitoring system is installed.

Staff receive a 10 week orientation to ICU which is supported by staff education.

Workload information provided by the corporation for the ICU is shown in the following exhibit.

Exhibit 6.20
ICU Patient Days & FTEs

	2002/03	2003/04
Total Patient Days	2,735	3,026
Total Worked Hours	51,148	56,742
FTE	34.97	36.66

6.2.5.2 *Productivity and staffing*

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.21
ICU Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	18.70	18.75
var NL non-drug $/Pt Day	$ 49.68	$ 55.12

Exhibit 6.22
ICU Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	18	15.03	17.41	19.71	17.84
var NL non-drug $/Pt Day	18	$ 38.61	$ 49.46	$ 55.83	$ 50.20

The issues associated with booked beds for surgical patients must be addressed to assist in achieving more efficient operations of the ICU.

The median performance of the ICUs in the peer hospitals should be used as the productivity target for the ICU at WMRH.

Because patient acuity is so important in determining appropriate staffing levels in the ICU and these data are not available to this study for WMRH or its peers, it is inappropriate to recommend best quartile productivity performance for WMRH based only on these comparisons. Rather, based on our interviews, observations, data analysis and the comparisons of performance with peer hospitals, we recommend that the median performance of the ICUs in the peer hospitals be used as the productivity target for the ICU at WMRH. As soon as possible staffing should be reduced to allow the ICU to achieve the median performance of it peer hospitals and achieve productivity of 17.41 worked hours per patient day.

Recommendation:

It is recommended that:

(115) The Director of Nursing should reduce staffing in the ICU at WMRH to achieve nursing productivity of 17.41 worked hours per patient day.

6.2.6 Birthing Program

6.2.6.1 Department Description & Operations

The Maternal/Newborn programs provides Level I and II family centered maternity care within the Western Region. Included in these programs are outpatient prenatal care, inpatient antepartum, intrapartum, postpartum and neonatal care as well as some ambulatory care encompassing outpatient diagnostic testing, i.e., non-stress tests, ultrasonography, amniocentesis, etc. Patient education services are provided through a collaborative effort between Western Health Care Corporation and Health and Community Services Western, i.e., New Life Program (prenatal education) and Post Partum Parent Support Program (postnatal education). Other collaborative efforts from a regional prospective include the involvement of regional representatives on the Breastfeeding Promotion Committee.

There are a total of 11 beds for birthing which include 5 birthing rooms and 6 regular post-partum beds. There is a triage area for assessment with 2 stretchers. Non-stress testing is also done in the triage area.

There are fewer than 600 births annually. OR staff attend C-sections. There were 105 C-sections in 2003/04. There is sufficient capacity to consolidate all obstetrical services for the region to this site

Workload information provided by the corporation for the Birthing program is shown in the following exhibit.

Exhibit 6.23
Birthing - Patient Days & FTEs

	2002/03	2003/04
Total Patient Days (adult)	2,638	2,331
Total Patient Days (newborn)	1,558	1,634
Total Worked Hours	45,929	46,365
FTE	30.87	29.63

6.2.6.2 *Productivity and Staffing*

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day). Like other low volume birthing units, staff of the inpatient unit provide support for a range of outpatient services in addition to inpatient care[55]. The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.24
Birthing Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	10.95	11.69
var NL non-drug $/Pt Day	$ 22.47	$ 28.40

Exhibit 6.25
Birthing Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	17	8.08	9.04	10.04	9.09
var NL non-drug $/Pt Day	16	$ 18.25	$ 26.58	$ 31.01	$ 25.46

Productivity of WMRH birthing is dramatically worse than performance of its peer hospitals.

Based on the worked hours and workload information provided to us by the region, in 2003/04, this functional centre's productivity is worse than the worst quartile level of performance of its peer group for birthing.

It is suggested that core staffing be changed to 3 RNs on days and nights (this assumes 12 hour shifts). This should be considered the minimum staffing required for station-fill. It will be more than sufficient to accommodate the requirements of the current workload. Although infrequent, there may be peaks in census and acuity that generate workload that exceeds the capacity of this minimum level of staffing and the hospital will need to, and need to be able to adjust staffing accordingly. Additional RNs should be on-call to provide support should more mothers be in labor than the available staff can safely manage.

It is recommended that the median performance of 9.04 worked hours per patient day be used as the target.

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[55] For low volume birthing units, patient days is used as a surrogate for the combination of inpatient and outpatient workload. The ratio between inpatient and outpatient workload accommodated by unit staff is relatively constant among these low volume birthing units.

Recommendation:

It is recommended that:

(116) The Director of Nursing should reduce staffing for Birthing at WMRH to achieve productivity of 9.04 worked hours per patient day.

6.2.7 Pediatrics

6.2.7.1 Department Description & Operations

The Paediatric inpatient services at WMRH are provided on a 12-bed unit. Like most general hospital paediatric units, the admission criteria include all medical, surgical, and mental health diagnosis for ages between 28 days and 18 years.

The program at WMRH provides primary, secondary and limited tertiary care. All other sites in the Western Region see children and admit for observation or send to WMRH for more specialized Paediatric Care. The program also provides respite care. This is offered to families of children with mental/physical disabilities up to a maximum of 30 days per year per child. The Paediatric Program can offer respite care to one client at a time year round.

The program also provides an outpatient service to children who do not require admission but need short-term intervention, i.e., blood pressure checks, weight checks, chemotherapy, etc.

A multidisciplinary team is available to provide services in the inpatient area. There is a play therapist available 1600-2000 Monday to Friday.

There are issues associated with physician coverage. The WMRH Chief of Staff is currently acting as Chief of Pediatrics as there is no one in this role at present. There are currently 4 pediatricians but 1 will be retiring in the near future.

Like many communities across Canada, adolescent mental health has been a concern. There has been lack of physician coordination for the mental health staff.

Workload information provided by the corporation for pediatrics is shown in the following exhibit.

Exhibit 6.26
Paediatric Patient Days & FTEs

	2002/03	2003/04
Total Patient Days	3,278	2,993
Total Worked Hours	35,658	35,017
FTE	23.87	23.59

6.2.7.2 Productivity and staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day). The peer hospital productivity range for comparison purposes is also presented

Exhibit 6.27
Paediatrics Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	10.88	11.70
var NL non-drug $/Pt Day	$ 10.83	$ 13.84

Exhibit 6.28
Paediatrics Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	12	7.74	7.94	8.29	9.07
var NL non-drug $/Pt Day	10	$ 12.80	$ 14.43	$ 21.17	$ 17.48

The size of this unit makes it difficult to achieve efficiencies. It should be staffed with the minimum number of staff to ensure the safety and care of the patients. Where possible efforts should be made to cross-train staff with family-centred care program so that both programs might benefit from sharing staff.

The minimum reasonable and safe staffing for the paediatric unit would provide 3 RNs on days and 2 staff on nights with at least 1 of these being an RN[56]. This staffing will generally exceed the number of staff necessary to meet the care requirements of patients on the unit; but fewer staff would not be safe.

It is recommended that the median performance of the peer hospitals of 7.94 worked hours per patient day be used as the productivity performance target for paediatric nursing at WMRH.

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[56] The unit nursing staff will also require clerical and clinical support at approximately 10 worked hours per day.

The fact that there are mental health patients should not change the target or minimum staffing. Most general hospitals accommodate paediatric (to age 18) mental health patients on their paediatric units. Moreover, WMRH has a multi-disciplinary team available to this unit. The unit would have to use all usual measures if these patients were in crisis (for example, additional staff for short period.) If some of these patients are more critical they should be transferred to the paediatric/adolescent mental health services in St. John's. There is currently a problem with physician coverage for these patients but that should not significantly impact the required nursing worked hours.

Recommendation:

It is recommended that:

(117) The Director of Nursing should reduce staffing for paediatric nursing at WMRH to the recommended minimum staffing levels until such time as workload increases beyond the capacity for workload of this level of staffing and then 7.94 worked hours per patient day should be used as the productivity target.

6.2.8 Mental Health

6.2.8.1 Department Description and Operations

The Mental Health Program at WMRH provides inpatient care on a 23 bed acute care unit which serves the Western Region of Newfoundland. The admission criteria includes all diagnosis covered in the DSM IV including alcohol and drug detoxification prior to clients being referred to the addiction rehabilitation service. The program is focused on providing a safe, therapeutic and caring milieu for persons experiencing emotional, behavioral, aging and addictive disorders through a multidisciplinary team approach.

Another component of the Mental Health program provided at Western Memorial Regional Hospital is an outpatient rehabilitation program. This program provides follow-up counseling through group therapy, one on one sessions and a neuroleptic clinic. Clients who attend are maintained in the community and the support provided enables them to lead productive lives.

There is a collaborative effort between institution and community to provide public education on Mental Health issues. This is accomplished through the Mental Health

Promotion Committee. The continuum of care is recognized between the two agencies.

Other issues such as recruitment and retention of psychiatrists and issues related to the child and adolescent population is jointly recognized.

Workload information provided by the corporation for psychiatry is shown in the following exhibit.

Exhibit 6.29
Psychiatry Patient Days & FTEs

	2002/03	2003/04
Total Patient Days	6,741	7,694
Total Worked Hours	54,683	41,526
FTE	34.26	27.90

6.2.8.2 *Productivity and Staffing*

Productivity on the psychiatric nursing unit has improved by 33% from 2002/03 to 2003/04.

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day). As can be seen, based on the data provided to this study, productivity on the psychiatric nursing unit has improved by 33% from 2002/03 to 2003/04. The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.30
Psychiatry Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	8.11	5.40
var NL non-drug $/Pt Day	$ 2.54	$ 2.27

Exhibit 6.31
Psychiatry Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	11	5.24	5.59	5.88	5.71
var NL non-drug $/Pt Day	10	$ 3.38	$ 4.59	$ 7.17	$ 5.09

The physical environment presents challenges for this unit with respect to programming space, secure observation, etc. It was reported during the site visit that there is also significant use of constant care. The organization has worked to reduce the amount of constant care in the past year. Every effort needs to be made to establish standards for the use of constant care to reduce the resource used for this activity.

The current productivity is between the best and median performance levels. Unit productivity does not seem to be having a negative impact on the quality of care. The current level of staffing is satisfactory. We recommend the unit maintain is current productivity performance level of 5.40 worked hours per patient day.

Recommendation:

It is recommended that:

(118) The Director of Nursing should maintain the current productivity performance of 5.40 worked hours per patient day of the Psychiatry Unit at WMRH.

6.2.9 *Palliative Care*

6.2.9.1 Operations

3C holds an 8 bed palliative care unit that opened in 2002. It is running about 76% occupancy. There are significant inefficiencies with this size of unit and minimum staffing of 2 on days and nights must be maintained regardless of how few patients may be on the unit. The unit leaves 1 bed vacant at all times to accommodate a potential community admission. Regional Programs include an End-of-Life Program that is a community program (defined as death within 6-8 weeks) and Symptom Management Program. Admission can be to the program and/or admission to the unit.

The criteria for admission to the unit are strict, confusing and/or inconsistent applied. Nursing staff and physicians from other areas need more information and education related to the admission criteria. Consideration could also be given to expanding the criteria to provide care to other palliative patients occupying acute medical beds and who could benefit from the care provided. This would increase the occupancy as well as staff productivity and still allow for admissions from the community.

Workload information provided by the corporation for the palliative unit is shown in the following exhibit.

Exhibit 6.32
Palliative Care Patient Days & FTEs

	2002/03	2003/04
Total Patient Days	2,208	2,222
Total Worked Hours	21,331	19,148
FTE	13.67	11.65

6.2.9.2 Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.33
Palliative Care Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	9.66	8.62
var NL non-drug $/Pt Day	$ 21.50	$ 17.40

Exhibit 6.34
Palliative Care Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	2	5.60	5.82	6.04	5.82
var NL non-drug $/Pt Day	2	$ 12.54	$ 13.90	$ 15.26	$ 13.90

Both of the comparators with palliative care units used fewer hours per patient day than did WMRH.

It should be noted that only 2 peer comparators reported productivity information for a palliative care unit. As a result the performance parameters are not meaningful. However, it should also be noted that both of the comparators with palliative care units used fewer hours per patient day than did WMRH.

It was recommended above that efforts should be made to increase the patient days in this unit and provide access for a broader range of patients. This will also assist in achieving improved productivity for the staff on the unit.

The size of this unit and average occupancy requires minimum staffing levels of 2 on days and nights (or 48 worked hours per day). Given the small number of comparators it is recommended that the mean productivity of the comparators, 5.82 worked hours per patient day be used as the performance target

Recommendation:

It is recommended that:

(119) The Director of Nursing should reduce staffing for palliative care at WMRH to the recommended minimum staffing levels until such time as workload increases beyond the capacity for workload of this staffing and then 5.82 worked hours per patient day should be used as the productivity target.

6.2.10 Emergency Department

6.2.10.1 Department Description and Operations

This department provides 24/7 full range emergency services to Corner Brook and surrounding areas. The department functions with triage area, resuscitation room, 5 individual exam rooms, and an observation/treatment room with 3 stretchers. There is a PCC Monday to Friday 0800-1600. Ward clerk coverage is available for 16 hours and the department staffs with 3 RNs on nights and days. Paramedics provide assistance up to their scope of practice when they are on site.

There is 1 ED doctor 24/7 and a 2nd doctor 1100 - 1700 daily Monday to Friday.

The Department also runs what is called a Non-Emergency Clinic. This is an outpatient clinic staffed by a Family Practice Physician from Corner Brook. The hours of operation are Monday to Friday 18:00 – 22:00 hours and Saturday & Sunday 10:00 – 22:00 hours. The clinic is staffed with a Personal Care Attendant. All patients are triaged by the Emergency Triage Nurse before being seen in this clinic

The department averages about 110 visits per day and about 40% of these are seen in the Non-emergency Clinic.

Workload information provided by the corporation for the ED is shown in the following exhibit.

Exhibit 6.35
Emergency Visits & FTEs

	2002/03	2003/04
Total Visits	38,851	40,881
Total Worked Hours	39,709	38,650
FTE	26.89	24.77

6.2.10.2 Productivity and staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient visit (Wkd Hr/visit). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.36
Emergency Productivity

	2002/03	2003/04
Wkd Hr/Visit	1.02	0.95
var NL non-drug $/Visit	$ 5.82	$ 6.04

Exhibit 6.37
Emergency Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	15	1.22	1.28	1.67	1.41
var NL non-drug $/Visit	15	$ 5.52	$ 6.53	$ 7.86	$ 7.24

There are issues associated with the layout of the department and the distance between the main department and the non-emergency clinic. There is shared space with outpatients which cause problems with traffic flow etc. The WMRH has submitted a proposal to the DOHCS for improvement in the physical facilities. These space issues do impact efficiency.

This unit is performing better than best quartile of the peer hospitals with respect to staff productivity. Unit productivity does not seem to be having a negative impact on the quality of care. The current level of staffing is satisfactory and it is recommended that this department maintain its current level of performance.

Recommendation:

It is recommended that:

(120) The Director of Nursing should maintain the current productivity performance of 1.0 worked hour per visit of the ED at WMRH.

6.2.11 Renal Program

6.2.11.1 Department Description and Operations

The Renal Care Program provides treatment for patients in end stage renal disease in the Western Region. The program provides the following services:

- 12 station hemodialysis unit for chronic/acute dialysis
- Post Kidney Transplant Clinic (also provides donor and recipient transplant work-up)
- Progressive Renal Insufficiency Clinic (Education and follow-up)
- Peritoneal Dialysis Program
- Clinical Management of the 4 bed Satellite Dialysis Unit at Sir Thomas Roddick Hospital

Services are provided 0800 - 2000 hours Monday to Saturday, with standby services when the unit is closed.

Workload data was not provided in the corporate MIS report for this program. The program reported the following patient volume statistics:

- 6,650 Hemodialysis Treatments/Year
- Average Census - 46 Hemodialysis Patients
- 10 Peritoneal Dialysis Patients
- 75 Progressive Renal Insufficiency Patients
- 50 Kidney Transplant Patients

6.2.11.2 Productivity & Staffing

There is no comparative productivity data available for this service. They are currently staffing at approximately 3.3 hours per treatment and this is common practice in other organizations where the range is often 3-3.5 hours per treatment.

6.2.12 Medical Day Care/Outpatient Recovery

This nine (9) bed unit located on the ground level provides services to patients accessing the Outpatient Procedure Rooms and patients requiring pre and post-procedure nursing care following Diagnostic Imaging procedures. The unit operates 0730 - 1600 hours Monday to Friday.

Medical procedures and treatments performed in the unit include such things as liver biopsies, blood transfusions, etc. A Pain Clinic service is also provided one day per week, 0800 to 2000 hours and uses 2 of the 9 stretchers.

There are 44 physicians who use this service.

There are significant space and location issues for this unit that are affecting both the efficiency and quality of patient care. This area shares clean and soiled rooms with ED. There is very limited storage space. There are significant issues with respect to traffic, congestion and ultimately confidentiality.

This unit often gets the overflow of admitted patients from the ED waiting for a bed on an inpatient unit. It is does not have the appropriate level of staffing to provide care for these patients. The physical environment is not appropriate for providing inpatient care. This is already an over-utilized space with level of ambulatory activity. Having inpatients in this area makes it almost impossible to provide for all of the needs of the ambulatory care patients.

With the previously recommended approach to creating a short stay unit, there may be some space freed up from the integration of the SDAS into a surgical short stay unit. Options for improving the space for Medical Day Care activity should be explored.

Recommendations:

It is recommended that:

(121) **The VP Clinical Operations and the VP Medical Services should eliminate the practice of holding admitted patients in the Medical Day Care Area.**

(122) **VP Clinical Operations should explore alternative locations for Medical Day Care to ensure a better quality of patient care.**

Workload information provided by the corporation for Medical Day Care is shown in the following exhibit[57].

Exhibit 6.38
Medical Day Care Visits & FTEs

	2002/03	2003/04
Total Visits	8,851	10,201
Total Worked Hours	20,359	21,355
FTE	13.20	13.63

6.2.12.1 Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient visit (Wkd Hr/Visit). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.39
Medical Day Care Productivity

	2002/03	2003/04
Wkd Hr/Visit	2.30	2.09
var NL non-drug $/Visit	$ 6.22	$ 5.52

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[57] Data provided included the Orthopaedic Clinic, an area not normally reported as part of Medical Day Care. We have removed 1.0 FTE and 7000 visits so that Medical Day Care performance can be compared with the peers.

Exhibit 6.40
Medical Day Care Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	3	2.51	3.28	3.80	3.11
var NL non-drug $/Visit	2	$ 18.50	$ 30.91	$ 43.32	$ 30.91

It should be noted that there are only 3 comparators for this area. This unit is functioning better than the best quartile but concerns have been noted above with respect to the delivery of service in this area. If the organization eliminates admitted patients from the ED being held in the Day Care area then the current level of staffing may be sufficient. If there is no change in this situation, staffing levels will continue to need to be augmented from the inpatient areas. Assuming the organization can contain the activity in this area we recommend that the current performance level of 2.09 worked hours per visit be maintained.

Recommendation:

It is recommended that:

(123) The Director of Nursing should maintain the current productivity performance of 2.09 Worked Hour/Visit of the Medical Day Care Unit at WMRH.

6.2.13 *Other Ambulatory Activity*

The Home Care Clinic (Dressing clinic) is dealing with activity that is not usually seen in an acute care facility.

The Home Care Clinic (Dressing clinic) is busy dealing with minor procedures such as suture removal and routine post-operative follow up of surgical patients. This activity is not usually seen in an acute care facility. These are procedures that are part of the normal postoperative course of care for a patient and are usually dealt with in a physician's office or in the home. It was reported during the site visits that home care is limited and this has resulted in the establishment of this clinic. It is not the responsibility of the hospital to provide this type of follow-up surgical services. Most if not all of these patients live within the catchment area of the WMRH and therefore should have access to their surgeon or primary care physician. These services should be provided by the physician's office practice.

Recommendation:

It is recommended that:

(124) The VP-Medical Services and the Director of Nursing should discontinue the Home Care (Dressing) Clinic at the WMRH.

There is an Orthopedic Clinic providing services for inpatients and outpatients.

There is a Urodynamic/vascular clinic supporting both inpatient and outpatient activity. The technician provides assistance on the inpatient units for difficult catheterizations. There is concern regarding the computer and software being used in this clinic, as tests have to be repeated a number of times because of computer malfunction. The use of on-call status for the technician should be re-examined. In total the technician was required to attend in off hours only about 35 times in 03/04. Paying for on-call status for a service that is required this infrequently is questionable; alternate mechanisms should be explored.

Workload information provided by the corporation for the functional centre External Clinic Visits is shown in the following exhibit.

Exhibit 6.41
External Clinics Visits & FTEs

	2002/03	2003/04
Total Visits	6,732	7,300
Total Worked Hours	9,850	9,113
FTE	5.98	5.52

6.2.13.1 Productivity and staffing

Productivity is measured as the total worked hours (unit producing and management and operational support) per patient visit (Wkd Hr/Visit).

Exhibit 6.42
External Clinics Productivity

	2002/03	2003/04
Wkd Hr/Visit	1.46	1.25
var NL non-drug $/Visit	$ 48.99	$ 41.79

Comparisons among hospitals of activity and productivity of outpatient clinics are quite difficult because of differences in approaches to reporting workload and staffing. Much of the workload data for outpatient clinics is incomplete. WMRH External Clinics data includes hours for off-site clinics that do not provide visit statistics. As a result we have not provided a comparison with the peer hospitals performance.

It appears the department has reduced FTEs while accommodating additional visits. Given that there is no valid comparative information, and based on observations it appears that quality of care is not suffering because the current level of performance. Thus, it is recommended that the departments maintain the current level of performance of 1.25 worked hours per visit.

Recommendation:

It is recommended that:

(125) The Director of Nursing should maintain the current productivity performance of 1.25 worked hours per visit of the Ambulatory Care Clinics at WMRH.

6.3 Sir Thomas Roddick Hospital

6.3.1 Overview

Sir Thomas Roddick Hospital is a brand new 44 bed acute care facility.

Sir Thomas Roddick Hospital is a brand new 44 bed acute care facility with a range of inpatient and outpatient services. There is a capacity to grow to 46 beds.

The Hospital moved into its new building in November of 2003. There have been issues associated with changes in practice that go along with delivering services in new space.

Services are provided, primarily, for the population of the Bay St. George area.

The services are provided, primarily, for the population of the Bay St. George area. The catchment area serviced by Sir Thomas Roddick Hospital is between Lourdes east to Gallants and south to the Jeffrey's/St. Fintan's area.

The hospital has five nursing units:

- Medical nursing unit which includes medicine, pediatrics and palliative care;
- OBS/Gyn/Mental Health Unit includes new born nursery, birthing rooms, post partum, ophthalmology, gynecology and mental health;
- Medical/Surgical unit which includes, general surgery, acute medicine and intensive care;
- Outpatient/Emergency Department that is staffed with nursing and medical services twenty-four hours per day;

- *Outpatient* services offered include chemotherapy program (adult only), visiting consultants (pediatrics and orthopaedics), endoscopy/ colonoscopy, and clinics which include internal medicine, surgery (general and gynecology) and obstetrics.

There are 2 general surgeons, 2 obstetricians/gynaecologists and 2 anaesthetists; all salaried.

There are 2 ORs with a pre-op assessment area and a post-op recovery room with 4 bays, 2 of them monitored and there is the availability of an additional portable monitor. The nursing staff are all cross-trained and multi-task. Patient registration is done at central registration because, until recently there was no ward clerk to act as the organizing clerk and flow engineer. This has improved the efficiency of the nursing staff who now can concentrate on the patient and not on logistical and support services.

Unfortunately the main source of sterile supplies for the ORs is on the other side of the building.

It was reported that respiratory care services are a problem because there is no full time Respiratory Therapist and the anaesthetist must do all the adjustments of any respiratory cases himself. However, this does not occur very often.

Although the entire facility is wheelchair accessible, the clinic area where physicians see patients in the ambulatory program is not easily accessible by patients that are on stretchers. This means that patients that are in this situation must be seen in another area of the building. The doors and turning angle are too narrow. Likewise the Electrophysiology area does not allow access by a stretcher because of narrow doorways. This is not acceptable when dealing with cardiac patients under going stress evaluations.

The radiology department is very modern and digitized. Interpretation of the films is off-site.. Since there is no on-site radiologist there is no facility to do x-ray controlled breast biopsies. However, it should be noted that once reports are dictated all physicians are able to access the results of ordered films by phone.

There is a room designated for endoscopy that was not designed for that purpose. It has 2 bed heads for oxygen suction etc. but is too small and not contiguous to a cleaning area and patient flow is not smooth. Close by is a similar room for minor procedures that has the same 2 bed heads and is used for minor excisions etc. under local anaesthetic. Neither of these areas is conducive to patient privacy.

The number of deliveries at STRH over the past three years was: 172 in 1999/00, 113 in 2002/03, and 136 in 2003/04. At this low volume it will be difficult to support an Obstetrician. High-risk mothers currently are sent to WMRH. This is reasonable since the support for these patients requires a team approach not only for the surgical intervention but also the resuscitation of the babies. This requires not only expertise but also a volume of work for all concerned to maintain an acceptable skill level.

Other surgical specialties are represented by a visiting Orthopaedic surgeon from Corner Brook and a resident Ophthalmologist. There is no urology.

6.3.1.1 Nursing Issues

There are a number of issues that impact the nursing services at this site.

- Information system support is a significant concern.
    - The nursing leaders report they are not yet able to communicate internally by email since moving into the new building. They are not able to communicate with staff by email.
    - Implementation of order entry has been delayed.
- There is no bio-medical support on-site and the current process/mechanisms are reported to be inadequate to the level of service required.
- The organizational structure/design issues noted earlier in this report are a significant issue for this site.
- Professional development for staff is reported to be essentially non-existent. There is a perception of little/no education locally. A lack of communication and implementation of policies contributes to issues in this area. For example, there was no support/education for fire policies changes when a change of 6 pages was made to the policy. It should be noted that since January of 2004 10 educational sessions have been provided at the STRH including monthly CPR classes, ICU course, ACLS, diabetes education in services, etc.
- There is a need to develop and implement guidelines and standards for constant observation. This was also noted earlier in this report. However the need for practice

standards and guidelines for the use of constant observation is important for this site.

6.3.1.2 Float Pool

The Hospital has an RN Float Pool. They schedule 1-2 staff per 12 hour shift for replacement purposes for sick call and vacation relief. Most of the time these shifts are doing replacement and there are few if any occasions when these scheduled staff are extra. Often there is no staff available in the float pool. This is also an important recruitment and retention mechanism to be able to offer new staff/graduates a full-time position (as Float Staff initially).

6.3.1.3 Measuring Productivity

As noted earlier in the report, the productivity of nursing is measured as nursing worked hours per patient day or visit in the appropriate departments. The productivity of nursing within each area was compared to nursing productivity at selected peer hospitals.

Comparisons are based on 2003/04 data for WHCC and 2002/03 data for the peer comparators.

6.3.2 Medical Inpatient Services

6.3.2.1 Department Description and Operations

This is a general medical unit of 19 beds that are allocated as follows:

- 11 acute medicine
- 4 palliative care
- 4 ALC beds

Typical cases seen in this unit include acute respiratory problems, pneumonia, CVA, diabetes, chronic heart/vascular disease, cellulitis, wound/skin care and management. The palliative patients are co-located at one end of the unit. Although there was concern that perhaps the palliative unit should be staffed separately this is not recommended. All 19 beds should be treated as one unit. A 19 bed unit is already a small unit and a difficult size to staff efficiently. In our experience units of 32-36 beds present the greatest opportunities for efficiency.

Typically both the medicine and surgical units run at approximately 85% occupancy. On medicine this means an average occupancy of 16 patients. Staff work 12 hour shifts. There is 1 Patient Care Coordinator (PCC) shared with the Med/Surg unit. Typical staffing is 2 RN and 2 LPN on days and 2 RN and 1 LPN on nights. Given the number of patients, this ratio of nurses to patients is generally greater than is seen in other facilities.

The size of this unit (19 beds) makes it difficult to achieve optimal nursing productivity when minimum staffing (station-fill staffing) is required regardless of the number of patients to be cared for.

The workload and staffing for this program provided by WHCC is presented the following exhibit. It suggests that average occupancy for 03/04 has been about 16 patients.

Exhibit 6.43
Medical Inpatient Services Days and FTEs

	2002/03	2003/04
Total Patient Days	8,323	5,837
Total Worked Hours	31,135	38,476
FTE	25.37	26.75

6.3.2.2 *Productivity and Staffing*

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day). The exhibit below presents the productivity for the unit for 2002/03 and for 2003/04. The peer hospital productivity range is also presented for comparison purposes.

Exhibit 6.44
Medical Inpatient Services Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	3.74	6.59
var NL non-drug $/Pt Day	$ 6.73	$ 11.50

Exhibit 6.45
Medical Inpatient Services Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	8	5.23	5.55	5.95	5.48
var NL non-drug $/Pt Day	9	$ 9.85	$ 10.20	$ 11.99	$ 10.61

Because of the current nurse/patient ratios and the size of the nursing unit, nursing staff on this unit are not as productive as the peer hospitals; nursing hours per patient day are significantly higher. However, we feel that there are opportunities to improve nursing productivity and that this unit should be able to be as efficient as similar units in peer hospitals. This unit should be able to achieve productivity of 5.23 worked hours per patient day.

Recommendation:

It is recommended that:

(126) The Director of Nursing should reduce staffing for the medical unit at STRH to achieve productivity of 5.23 worked hours per patient day.

6.3.3 Combined Surgical Services

6.3.3.1 Department Description and Operations

This unit is reported as a 22 bed combined medical/surgical unit that includes obstetrics and mental health inpatient services. It includes the following:

- 2 LDRP rooms and 1 Emergency Delivery Room
- 3 Mental Health beds
- 17 flexible medical/surgical beds

Typical surgical cases on this unit include cholecystectomy, appendectomy, bowel resections, amputation, mastectomy hernia repairs, hemorrhoidectomy, pilonoidal sinus repair, cardiac step-down, unstable angina, etc.

The scope of mental health services has changed since the hospital has designated beds. Activity in this area of service is increasing and the physical environment is not conducive to managing these patients in the general medical surgical milieu. However, adequate care can be provided to these patients in the short term. There may be a need for a day program. There is an ambulatory program for short term intervention managed by social work.

Service for the birthing activity at the hospital is provided within this general medical/surgical unit. Separate staff with obstetrical skills are scheduled to be available for care delivery when a laboring patient arrives. The hospital schedules 2 RNs 24/7 for this service. As noted elsewhere in this report, there are not a significant number of births annually. The low number of births and hence patient days makes it very difficult to use staffing productively.

Staff work 12 hours shifts. Typical staffing includes 4 RN and 1.4 LPN on days and 4 RN and 1 LPN on nights. Two of these RNs on days and nights are obstetrical staff. Presently on days 1 of these obstetrical RNs assist in the OR for endoscopy and to support conscious sedation. As well, they assist in the OR for 1st case set-up.

There are opportunities for improved productivity if obstetrical staff are not scheduled separately. Other small organizations ensure at least, but only 1 obstetrically trained staff is scheduled on each shift. But this staff person is available for other duties and patient assignment until a mother in labour arrives.

The workload and staffing for this program is presented the following 3 exhibits. The days and FTEs are shown for medicine/surgery, birthing, and combined surgical services which includes all days and FTEs reported.

Exhibit 6.46
Med/Surg Patient Days & FTES

	2002/03	2003/04
Total Patient Days	3,340	6,268
Total Worked Hours	31,313	33,786
FTE	23.26	23.20

Exhibit 6.47
Birthing Patient Days & FTEs

	2002/03	2003/04
Total Patient Days	743	1,156
Total Worked Hours	15,266	15,850
FTE	14.35	12.27

Exhibit 6.48
Combined Surgical Services Patient Days & FTEs

	2002/03	2003/04
Total Patient Days	4,083	7,424
Total Worked Hours	46,579	49,636
FTE	37.61	35.47

Patient days for this unit for 2003/04 were 6,268 for med/surg, 652 for mental health and 1,156 for obstetrics for a total of 7,424 and the total FTEs reported were 35.47

6.3.3.2 Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day).

The productivity for this unit is presented in 3 exhibits. The first includes workload and hours reported for medical surgical and mental health days. Productivity for birthing is provided separately followed by productivity for the combined service.

Exhibit 6.49
Med/Surg Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	9.38	6.02
var NL non-drug $/Pt Day	$ 27.20	$ 15.12

Exhibit 6.50
Birthing Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	20.55	13.71
var NL non-drug $/Pt Day	$ 31.49	$ 22.14

Exhibit 6.51
Combined Surgical Service Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	11.41	6.69
var NL non-drug $/Pt Day	$ 27.98	$ 14.88

The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.52
Med/Surg Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	3	5.21	5.29	6.54	6.07
var NL non-drug $/Pt Day	3	$ 10.46	$ 11.16	$ 14.43	$ 12.87

Exhibit 6.53
Birthing Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	6	7.49	8.19	9.35	8.33
var NL non-drug $/Pt Day	7	$ 13.72	$ 21.59	$ 28.06	$ 23.64

Exhibit 6.54
Combined Surgical Service Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	9	5.43	5.57	6.81	6.29
var NL non-drug $/Pt Day	10	$ 10.78	$ 12.18	$ 15.76	$ 13.92

This unit should be able to achieve (an integrated) productivity of 5.43 hours per patient day. However, it is noted that this unit is relatively small. Variability in census may cause it to have insufficient patients to maintain a reasonable level of productivity on every shift of every day; however over the course of a year, the targeted average level of productivity should be achievable. The minimum staffing level for this unit should be 3 RNs and 1 LPN on days and 2 RNs and 1 LPN on nights. Of the complement of RNs on any shift, at least one should have obstetrical experience. If a laboring patient is admitted, med/surg part-time/casual staff or float pool staff should be used to back-fill the obstetrical nurse who should be providing care to the obstetrical patient and not to the med/surg patients.

Recommendation:

It is recommended that:

(127) The Director of Nursing should reduce staffing for the surgical services nursing unit at STRH to achieve productivity of 5.43 worked hours per patient day.

6.3.4 *Intensive Care Unit*

6.3.4.1 Department Description and Operations

This is a 3 bed unit adjacent to the medicine unit that primarily provides care for medical patients including cardiac patients with MI, dysrhythmia, cardio-version, diabetic ketoacidosis, etc. They also provide support for complex post-operative patients who may have invasive monitoring such as arterial lines, CVP lines, etc. They have provided care for patients with ventilators. There is 1 respiratory therapist on staff.

There is no telemetry currently available. It was supposed to be installed shortly after moving into the building but has not been put in place yet. As a result, monitoring can only happen in the ICU room. There is no ability to monitor the ICU patients out at the inpatient desk. This means that dedicated staff have been assigned to this room even when there is only 1 patient.

The size of this unit makes it very difficult to use staff productively.

The workload and staffing for this program is presented the following exhibit.

Exhibit 6.55
ICU Patient Days and FTEs

	2002/03	2003/04
Total Patient Days	395	417
Total Worked Hours	8,474	9,556
FTE	5.56	6.26

6.3.4.2 *Productivity and Staffing*

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per patient day (Wkd Hr/Pt Day). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.56
ICU Productivity

	2002/03	2003/04
Wkd Hr/Pt Day	21.45	22.92
var NL non-drug $/Pt Day	$ 12.74	$ 13.47

Exhibit 6.57
ICU Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Pt Day	8	15.56	18.15	21.75	18.97
var NL non-drug $/Pt Day	8	$ 29.83	$ 40.32	$ 84.96	$ 77.10

Based on the worked hours and workload information provided to us by the region, in 2003/04, this functional centre's productivity is significantly worse than the worst quartile level of performance of its peer group. However, because of its low census and small size will be difficult for the ICU to improve its productivity.

Because of the small size and relatively low census of this unit no more than a minimum staffing of 1 RN on days and nights is required to address patient care requirements. Because of its location there is back-up and support available from the adjacent inpatient unit so that this level of staffing is viable.

There may be peaks in census and acuity that generate workload that exceeds the capacity of this minimum level of staffing and the hospital will need to be able to adjust staffing accordingly.

Telemetry capability should be installed as soon as possible to allow monitoring of ICU patients outside the ICU on the inpatient unit. This will help with efficiencies for the ICU and the inpatient area. The nurse assigned to ICU could assist with care on the inpatient unit when monitoring capability is in place and depending on the status of the patient.

It is recommended that minimum staffing for station-fill purposes for this unit should be 1 RN 24/7.

Recommendation:

It is recommended that:

(128) The Director of Nursing should reduce staffing to the recommended minimum staffing levels for ICU at STRH.

6.3.5 Combined OR/PARR

6.3.5.1 Operations

This area includes the following:

- 2 fully equipped OR rooms
- 4 PARR stretchers
- 6 bed pre-admission area
- 1 endoscopy room
- 1 minor procedure room

Staff work across all areas in the department. Recently they reassigned staff to put a PCC in place. Since this change was implemented, staff report they have been able to improve turnaround time and staff satisfaction has improved.

There is a relatively small case volume compared with peers. Efficient use of staff is difficult to achieve with this low volume of activity. It would appear from the workload reported and assuming closure on weekends and holidays, that the unit is averaging only about 3 cases per day. This would not include endoscopy volume.

The workload and staffing for this program are presented in the following exhibit.

Exhibit 6.58
Combined OR/PARR Cases & FTEs

	2002/03	2003/04
Total Cases	697	720
Pre-Admission Visits	1,655	1,996
Total Worked Hours	12,122	13,608
FTE	9.20	9.51

6.3.5.2 *Productivity and Staffing*

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per case (Wkd Hr/Case). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.59
OR/PARR Productivity

	2002/03	2003/04
Wkd Hr/Case	17.39	18.90
var NL non-drug $/Case	$ 350.46	$ 362.28

Exhibit 6.60
R/PARR Peer Hospital Productivity Range

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Case	2	6.35	6.46	6.57	6.46
var NL non-drug $/Case	2	$ 134.16	$ 146.87	$ 159.59	$ 146.87

It should be noted that there are only 2 peers for comparison purposes because relatively few hospitals have so few cases that they have staffed the OR and PARR as a single functional centre.

To provide for additional comparators, we have summed the staffing in the OR and PARR of the other comparators to provide a surrogate measure of their OR/PARR staffing per OR case.

Exhibit 6.61
OR & PARR Peer Hospital Productivity

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Case	11	6.54	6.89	7.78	7.03
var NL non-drug $/Case	11	$ 252.11	$ 288.15	$ 322.65	$ 283.46

The OR/PARR at STRH looks to be much less productive than similar services at peer hospitals. However, the pre-admission visit activity provides additional workload for the staff of the unit. The minimum level of staffing required for functionality and patient safety should still provide adequate staffing to handle the pre-admission workload. Minimum staffing for the area should provide 2 staff required for the OR, 2 staff required for the PARR/Pre-admission area and 2 staff required for the endo/minor procedure room. Taken together, this level of coverage will require approximately 8 FTE staff positions. Even though a PCC was recently added in this area, consideration should be given to converting this role to that of a 'working supervisor' and include the position as part of the minimum staffing.

Recommendation:

It is recommended that:

(129) The Director of Nursing should reduce staffing to the recommended minimum staffing levels for the OR/PARR at STRH.

6.3.6 *Combined Emergency/Outpatient*

6.3.6.1 Department Description and Operations

This area provides 24/7 service and is staffed with 2 RNs and 1 physician. There is an additional nurse providing triage from 1000-1800 hours Monday to Friday. It includes 1 trauma room, a suture/minor procedure room and plaster room.

During the site visit workload was reported as approximately 65-75 visits/day for the ER. It appears outpatient workload is reported separately and this is shown in separate table.

Renal workload activity is not included here but 5.56 FTEs are reported for this program. This is a 4-station satellite for WMRH. It operates for 12 hours Monday, Wednesday, and Friday and 8 hours Tuesday, Thursday, and Saturday. There are currently 12 patients. The unit could accommodate 16 patients but are not funded for this level of activity.

Workload information provided by the corporation is shown in the following exhibit. External Clinics have been omitted from the discussion of OPD because of incomplete and inadequate workload data from the peer organizations.

Exhibit 6.62
Combined ED/OPD Visits and FTEs

	2002/03	2003/04
Total Visits	34,309	35,885
Patient Days	60	49
Total Worked Hours	34,161	37,163
FTE	25.53	26.59

6.3.6.2 Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per visit (Wkd Hr/Visit). The peer hospital productivity range for comparison purposes is also presented.

Exhibit 6.63
Combined ED/OP Productivity

	2002/03	2003/04
Wkd Hr/Visit	1.00	1.04
var NL non-drug $/Visit	$ 4.55	$ 5.22

Exhibit 6.64
Combined ED/OP Peer Hospital Productivity

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	10	0.92	1.09	1.21	1.13
var NL non-drug $/Visit	11	$ 5.04	$ 5.59	$ 6.88	$ 5.84

STRH productivity is comparable to its peers in ED/OP. However, it appears that the hospital has already reduced its staffing to the minimum feasible levels in ED. Current staffing in the outpatient clinics appears to be appropriate. The current level of staffing is satisfactory until such time as workload increases beyond this capacity. There may be a need to consider increasing the staffing levels if volumes increase, particularly related to chemotherapy.

6.4 Health Centres

There are 4 health centres throughout the region that provide a combination of acute and long-term care. These Health Centres include:

- Bonne Bay Health Centre, Norris Point
- Calder Health Centre, Burgeo
- Dr. Charles L LeGrow Health Centre, Port aux Basque
- Rufus Guinchard Health Centre, Port Saunders

The Health Centres serve as the focus of health care activity in their own and surrounding communities. All the Health Centres are relatively new facilities with sufficient up-to-date equipment and furnishings. The buildings are fully wheelchair accessible including bathrooms in patient/resident rooms.

6.4.1 Issues in Management & Operations Across Health Centres

6.4.1.1 Organizational Structure

The issues associated with the current regional administrative structure noted earlier in this report appear to impact decision-making and operational efficiency in all the health centers. Communication in the regional model appears to be difficult for all health centers. Regional staff satisfaction surveys confirm that communication is an area of concern.

6.4.1.2 Programming for LTC Residents

It was reported during the site visits and by observation of the consultants that there is limited programming available for LTC residents. Centres have portions of FTEs for recreation therapy aides and oversight by a specialist who must cover a number of sites. The ratios reported are 1 FTE for 30 residents and 0.5 FTE for 22 residents. There are no standards commonly reported across the country for recreational therapy resources.

The staff that are on-site are doing their best with limited resources and the use of volunteers. Although recent resident and family satisfaction surveys have indicated satisfaction with current recreation activity, the consultants that visited these Centres had a general sense that there is quite limited psycho-social stimulation or activation provided for residents. It is difficult to provide quality of life and appropriate socialization/participation with limited recreation resources. A review of the recreational therapy service and the activities being provided for residents is recommended to determine if there are alternative, more effective approaches to providing for appropriate resident activation.

Recommendation:

It is recommended that:

(130) The CNO and VP Rural along with the recreation staff should review recreation services to determine how they might be augmented to provide more stimulation for LTC residents.

6.4.1.3 Workload and Productivity Measurement for the Health Centres

For purposes of comparison, we combined patient days reported for inpatient acute and long-term care to create a total health centre patient days measure. Using methodologies developed in other like studies conducted elsewhere we have created a surrogate measure for equating a patient day with an emergency/outpatient visit. We used a factor of 4 for acute days and a factor of 3 for long term care days. That is, 1 acute inpatient day would be the equivalent to 4 ED/OP visits and 1 LTC patient day would be equivalent to 3 ED/OP visits. Workload for the health centers is presented as equivalent visits.

Health Centre productivity in WHCC ranged from a low of 0.89 to a high of 1.66 worked hours/equivalent visit.

Health Centre productivity in WHCC ranged from a low of 0.89 worked hours per equivalent visit to a high of 1.66 worked hours per equivalent visit. This is a wide range for entities within one corporation doing essentially the same work. The Corporation should examine its staffing of the health centres to ensure equitable distribution of resources to care for the patients of each Centre.

The productivity for similar health centers in other jurisdictions is:

- Best quartile: 1.011 worked hours per equivalent visit
- Median: 1.154 worked hours per equivalent visit

In considering the reallocation of staff, WHCC should be guided by these performance levels achieved by peer organizations across Canada.

Recommendation:

It is recommend that:

(131) **The VP Rural should review the allocation of staff resources among the Health Centres in the region and rebalance staffing to ensure equity among the Centres.**

6.4.2 Bonne Bay Health Centre, Norris Point

6.4.2.1 Description and Operations

The Bonne Bay Health Centre was opened in late 2001. During the site visit, it was reported that there were 8 acute care beds, 14 long term care beds, an emergency department and outpatient clinic, laboratory and x-ray services.

Community programs including public health, and child, youth and family services are also provided on site. The facility also provides space for visiting professionals such as medical specialists, audiologists, speech language pathologists, psychologists, etc.

6.4.2.2 Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per equivalent visit (hrs/visit).

Exhibit 6.65
Bonne Bay HC Productivity

Bonne Bay Health Centre	2002/03	2003/04
Total Patient & Resident Days	7,255	6,650
Total ER/OP Visits	8,033	7,835
Workload	31,976	29,429
Worked Hours	42,505	38,648
Worked hrs/workload	1.33	1.31

The productivity performance of this centre is worse than the median quartile and second worst of the health centers in the region.

6.4.3 Calder Health Centre, Burgeo

6.4.3.1 Description and Operations

Calder Health Care Centre is relatively new facility that provides primary health care services and long term care services to the communities of Burgeo, Grand Bruit, Grey River, Francois and Ramea. During the site visit, the Centre reported 18 Long Term Care beds, 4 Acute Care beds and 2 observation/holding Beds, an emergency department and outpatient clinics, laboratory and x-ray services. Community programs including public health, and child, youth and family services are also provided on site.

Coastal Clinics are operated in the Communities of Ramea, Grey River, Grand Bruit and Francois. Each of these Communities has a designated Health Care Facility Clinic that is operated through the Calder Health Care Centre. Ramea Clinic operates a scheduled clinic Monday through to Friday with Emergency on-call services in the off-hours. The clinics in Grand Bruit, Grey River and Francois are scheduled to be held by the Nurse Practitioner from Ramea every Tuesday via Air Services (weather permitting).

6.4.3.2 Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per equivalent visit (Worked hrs/workload).

Exhibit 6.66
Calder HC Productivity

Calder Health Centre	2002/03	2003/04
Total Patient & Resident Days	7,419	7,012
Total ER/OP Visits	7,622	7,690
Workload	30,620	35,738
Worked Hours	39,614	34,429
Worked hrs/workload	1.29	0.96

The productivity performance of this centre is better than the median of the peer health centres and second best of the health centres in the region.

6.4.4 Dr. Charles L. LeGrow Health Centre, Port aux Basques

6.4.4.1 Description and Operations

The Dr. Charles L. LeGrow Health Centre is a 50 bed facility which provides acute, long term care and outreach services to the entire south west coast of Newfoundland. The Health Centre is designed as a district hospital with limited surgical services and it continues to develop programs and services within the mandate of the institution and the Western Health Care Corporation.

There are 20 acute care beds, which include two 2 intensive care / monitoring beds, 2 pediatrics, 2 obstetrics, and 14 medical and surgical care. At the present time the region reports there are only 14 of these 20 beds staffed and in operation. There are 30 long term care beds including 4 beds which are used for short term respite care, and slow paced rehabilitation.

The Centre also provides emergency services and outpatient clinics, operating room, chemotherapy, low risk obstetrics, pharmacy, diagnostic services in lab and radiology, and an adult day care program. Community programs including public health, and child, youth and family services are also provided on site.

Unfortunately, there have been no anaesthesia services available since August 2003. This has had a direct impact on the provision of surgical and obstetrical services. Primiparas and any higher risk obstetrics have been referred out and only those procedures that can be done without general or regional anaesthetic have been performed locally.

Endoscopy services have been maintained though equipment is fibre optic and is not current. The VP Clinical Operations should ensure that the endoscopy equipment is upgraded at the Centre and/or that endoscopy services are provided by an outreach/mobile facility from the WMRH.

6.4.4.2 Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per equivalent visit (hrs/visit).

Exhibit 6.67
LeGrow HC Productivity

LeGrow Health Centre	2002/03	2003/04
Total Patient & Resident Days	13,361	14,070
Total ER/OP Visits	17,243	19,288
Workload	48,042	50,786
Worked Hours	80,604	74,972
Worked hrs/workload	1.68	1.48

The productivity performance of this centre is worse than the median quartile and the worst of the health centers in the region.

6.4.5 Rufus Guinchard Health Centre, Port Saunders

6.4.5.1 Current Characteristics

This Health Centre opened in 1994 and has 22 Long Term Care beds and 8 inpatient acute care beds of which 1 is designated as palliative and 2 observational beds. It provides emergency services and outpatient clinics, laboratory and x-ray services. Community programs including public health, and child, youth and family services are also provided on site.

6.4.5.2 Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per equivalent visit (hrs/visit).

Exhibit 6.68
Rufus Guinchard HC Productivity

Rufus Guinchard Health Centre	2002/03	2003/04
Total Patient & Resident Days	8,032	8,360
Total ER/OP Visits	16,174	17,201
Workload	42,419	44,018
Worked Hours	41,831	39,319
Worked hrs/workload	0.99	0.89

The productivity performance of this centre is better than the best quartile and is the best of the health centers in the region.

6.5 Long Term Care Services

In addition to the long term care services offered at the Health Centres, there are 4 sites in two communities that provide institutional-based long term care services:

- The Bay St. George Long Term Care Centre
- LTC in Corner Brook
  - Corner Brook Inter-faith Home for Senior Citizens
  - The Dr. J.I. O'Connell Centre
  - The 5th & 6th Floors of the Western Memorial Hospital (WMH)

Together these facilities provide long and short term continuing care services, protective care, and slow stream rehabilitation.

All the facilities use an interdisciplinary model in their approach to care and are to be commended for maintaining this approach.

6.5.1 Nursing Staff Skill Mix in LTC

As part of the Best Practice Review, a review of empirical research on the relationship between skill mix and outcomes of different client groups in specific areas such as acute care, sub-acute care, long term care was undertaken.

Staff mix here refers to the combination or grouping of different categories of workers employed for the provision of care to a designated population of clients. For the purposes of this study it includes Registered Nurses (RNs), Licensed Practical Nurses (LPNs), and unlicensed care providers here referred to as Personal care attendants (PCAs).

Residents' care requirements should determine both the amount and type of nursing care.

Longer life expectancies, advances in medical science, and changes to the health care delivery system are among those factors that are leading to increased care needs in the long term care population. The type of care required by residents should drive both the amount of care provided by nursing staff as well as the mix of staff used to deliver that care.

6.5.1.1 Literature Review

There appears to be a continuing shortage of credible studies that that address skill mix of nursing staff in relation to outcomes.[58] Some of the more rigorous studies were summarized by Hailey and Hartsall and are presented in a table in an Appendix to this report.

A recent landmark study does not offer an optimal skill mix.

A recent landmark study of 19 hospitals in Ontario showed that nursing staff skill mix had a statistically significant, negative influence on nursing hours, because as staff skill mix decreased the number of nursing hours required per patient increased.[59] At P=0.05, for instance, staff mix models that included a lower proportion of RNs were related to the use of more nursing hours. Moreover, the data show that costs rise as nursing care hours increase, even though salaries for non-RN staff are lower. Mc Gillis Hall and colleagues do not, however, offer an optimal skill mix.

The authors also found that skill mix has a significant effect on medication errors and wound infections, as skill mix increases the incidence of these adverse events decreases. The authors did not find any significant correlation between nurse experience level and patient outcomes. The authors suggests that efforts must be made by unit managers to balance both the experience level and the mix of nursing staff to ensure quality patient outcomes are not compromised in an effort to reduce costs. This study was focused on acute care and McGillis Hall is in the process of undertaking a similar study for long term care.

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[58] Hailey, D., Hartsall, C. "Nursing Skill Mix and Health Care Outcomes" Alberta Heritage Foundation for Medical Research, IP-* Information Paper, December 2001.

[59] Hall, LM, Doran, DI et al. "A study of the impact of nursing staff mix models and organizational changes strategies on patient, system and nurse outcomes, a summary report of the Nursing Staff Mix Outcomes Study. Toronto: University of Toronto, 2001. Available: http://www.fhs.mcmaster.ca/nru/web.McGillis%20Hall.pdf.

There is no difference in outcomes for LTC residents for care from differen nursing skill levels.

Anderson et al[60] considered patterns of resource allocation that related resident outcomes for all nursing homes in Texas. Secondary data were obtained from the state Department of Health Services and 11 items selected that reflected outcomes of care. Comparing pattern scores by resident outcome groups, for those with the best and worst average outcomes, differences for RNs, LPN type category and aides were statistically non-significant.

Hailey et al in their review for the Calgary Health Region noted earlier suggest that at present there is little in the literature to assist with decisions about the nursing workforce. Those studies that are available, particularly for LTC, tend to have only marginal relevance to practical issues that will be faced by regions. The studies also have some significant methodological limitations. They suggest there is a need to recognize the importance of context and practice settings and also the influence of non-nursing staff outcomes.

The way forward for regions may be to introduce enhanced LPN roles and/or PCA roles in specific areas with appropriate evaluation.

6.5.1.2 Skill Mix in Other Canadian Jurisdictions

In Ontario, the Nursing and Health Outcomes Project (NHOP) was created in response to recommendations 5 and 6 of the *Good Nursing Good Health: An Investment for the 21st Century* report. The purpose of The Nursing and Health Outcomes Project is to identify nursing-sensitive patient outcomes and their attendant nursing inputs and processes that could be abstracted from patients' charts or provided in other formats. This would allow administrators and researchers in the future to describe how different nursing interventions and different numbers and types of nurses (RNs, RPNs) affect patient outcomes. In the longer term, it may be possible to develop a funding formula that is nursing-specific. The project focuses on acute care, long-term care, complex continuing care and community care (home care). Many of the identified inputs are collected in the Ontario hospitals' MIS. Some information on nursing inputs is also collected within Ontario's long term care and home sectors but it is not centrally reported. As noted above there are emerging studies examining staff mix and outcomes and the evidence is increasing that staff mix matters. Information on RN hours, RPN (LPN) hours and unlicensed assistive personal (UAP or PCA) hours for long term care is now becoming available.

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[60] Anderson, RA, Hsieh P, Su H. "Resource allocation and resident outcomes in nursing homes: comparisons between the best and worst. Res Nurs Health 1998; 21:297-313.

In a study[61] examining the current utilization of LPNs in British Columbia, most of the Health Authorities are involved in looking at staff mix. The Vancouver Island Health Authority and Vancouver Coastal Health Authority are both examining the best staff mix of RN, LPN and PCA role across the acute, sub-acute and residential care areas. Fraser East is involved in a three-year project to introduce a new collaborative practice model for the RN/LPN/PCA role working in residential care.

In Nova Scotia, the Department of Health published a Task Force Report on Resident/Staff Ratios in Nursing Homes in February 2002. In their review of nursing home staffing standards used in other provinces, they identified that drawing comparisons in staffing standards across the country is impaired by several factors including:

- The quality to which other provinces completed the survey of the task force.
- Regionalization and the level to which provinces are involved in funding.
- Different funding methods e.g. Global budgeting, case mix payments systems, and population needs based funding methods.

Due to these differences the study was not able to draw useful comparisons with Ontario, British Columbia, Alberta, Saskatchewan, and PEI. The study was able to compare existing information in the other provinces. Each of these provinces has a different method of classifying residents into levels of care. Staffing levels vary by level of care. For the purposes of the study, provinces were given a set of standard level of care definitions and were asked to fit their information to those categories. The summary of their findings is presented in the table below.

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[61] Greenlaw, B "Licensed Practical Nurses: Current Utilization: Hospital Employees Union, Burnaby, BC: February 2003. Available: www.heu .org under special reports.

Exhibit 6.69
Staffing Standards for Skill Mix and Direct Hours of Care from the Nova Scotia Task Force

	Direct Care Hours* by RN/LPN/PCW			
Province	Level 1	Level 2	Level 3	Level 4
NS	n/a n/a	NS level I = 1.5 hrs budget target for PCW - others unspecified	NS level II = 3.25 hrs budget target 15/15/70	n/a n/a
MB	0.5 hrs 10/0/90	2.0 hrs 10/20/70	3.5 hrs 20/15/65	3.5 hrs 20/15/65
NB	n/a n/a	2.5 hrs 20/40/40	2.5 hrs 20/40/40	n/a n/a
NF	0-1 hrs 100% PCW	2.0 hrs 100% PCW	3.0 hrs 20/80 (LPN & PCW)	3.2 hrs. 20/80 (LPN & PCW)

*excludes M&O hours

6.5.1.3 *Findings for LTC in the Region*

As noted above there is a growing body of research regarding the link between staff mix and nursing-sensitive client outcomes. It points to the need for decision-makers to consider the appropriate utilization of professional nurses (RNs and LPNs) and unregulated providers (PCAs).

The needs of LTC clients are increasingly complex in both community and institutional settings.

The changing characteristics of residents in long term care facilities in the region will impact the model of nursing care delivery. The goals of nursing are to improve health outcomes, quality of care, quality of life, and to ensure the provision of safe, ethical nursing care. The prevalence of disease in the senior's population is showing a steady increase.[62] The needs of LTC clients are increasingly complex in both community and institutional settings. Nurses are caring for clients with complex care and treatment plans some of whom are technologically dependent.[63]

These changing needs will impact the models of nursing care delivery in the future. LTC requires a variety of care providers with varying levels of knowledge and expertise who are responsible for meeting the basic and complex needs of residents. There has been discussion regarding the role of the

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[62] Government of Canada, national Advisory Council on Aging (2001). Report card seniors in Canada. Ottawa, Public Works and Government Services Canada.

[63] Association of Registered Nurses of Newfoundland and Labrador, **The Role of the Registered Nurse in Long Term Care Position Statement and Guidelines**, February, 2004.

RN, LPN and the use of non-regulated health care providers in LTC in the region.

The Region should utilize the RN in a coordinating and consulting role.

Given the patient population and the changing needs, the Region should ensure a nursing care delivery model that utilizes the RN in a coordinating and consulting role. This means that the RN will follow the guidelines established by the provincial association. This means the RN will utilize the nursing process to:

- Conduct a holistic needs assessment of each resident on a regular basis.
- Oversee and ensure the implementation of the plan of care
- Provide direct nursing care.
- Evaluate the outcomes of the plan of care for each resident.

Essentially the RN will use their knowledge and skills to oversee and provide care for such things as bowel/bladder management, medication use, restraint use, behavioral management, wound and skin care, adjustment strategies, fall prevention and restorative care.

RNs need to be more actively involved in planning and evaluating care and communicating with families in giving clinical leadership at the unit level and not relying on managers.

LPNs can autonomously care for residents who have less acuity and less complex care needs with predictable responses and outcomes.

LPNs can autonomously care for residents who have less acuity and less complex care needs with predictable responses and outcomes. As care requirements become more unpredictable, the greater the need for LPNs to collaborate with RNs.

WHCC has identified opportunities to enhance the role and utilization of the LPN so that they are working to the full scope of their practice. There are initiatives already underway to enhance the skills of LPNs.

Currently, much of the care being provided by LPNs in the region is is provided by PCAs in other jurisdictions.

Currently, much of the care being provided by LPNs is care that is being provided by PCAs in other jurisdictions. When introducing the role of a PCA, clear standards of care, expectations for performance and monitoring of performance should be in place.

6.5.1.4 Moving to Change the Skill Mix in the Region

In the WHCC Region the current skill mix in LTC is

- RN: 24%
- LPN: 75%
- PCA: 1%

No common standards across the country with respect to the appropriate skill mix in LTC.

There are no common standards across the country with respect to the appropriate skill mix in LTC. From the data noted above, generally, the professional nurse mix (RN plus LPN) is in a wide range from 25-60% of total nursing staff hours.

It is clear that there is an opportunity for the region to change the current skill mix to be more in line with other provinces with respect to the use of PCAs. It appears that there is an opportunity for the region to achieve some savings while still ensuring an appropriate standard of care for residents.

The Region should change its skill mix; initially moving toward a mix of 60% professional nursing to 40% unregulated provider.

As noted above, the current skill mix in LTC in the region is reported as 99% professional and 1% unregulated staff. Based on the literature and the diversity of current practice across the country, we are not in a position to make a firm recommendation regarding mix. However, it may be reasonable for the Region to consider initially moving toward a mix of 60% professional nursing to 40% unregulated provider.

We would suggest the Department and the Region work together to establish an acceptable target for professional mix and then develop a plan to significantly extend the role of the PCA in the LTC treatment setting. Appropriate training will need to be ensured for the role of the PCA and for the other team roles that will work with this new role. It is suggested that by care area, the centers with long term care identify opportunities to incorporate the role of a PCA with both the RNs and LPNs working to their scope of practice. The Region should then develop a plan for implementation of the new role in the appropriate care areas.

The savings resulting from this change will be a function of the different in wage rates among the different skill levels of nursing staff. This will not provide any reduction in nursing hours. Wage rates for PCAs likely will be the result of bargaining. We have not estimated the savings from this substitution of skill levels. Also, since there are currently a very limited number of PCAs in the region, they will need to be trained and the time frame for realizing any savings will be a function of the time required to train this new staffing level.

Recommendation:

It is recommended that:

(132) **The Chief Nursing Officer and the Directors of Nursing should develop and implement a new model of nursing care delivery for LTC that includes RN and LPN providers working to their full scope of practice and that introduces the role of PCA.**

6.5.1.5 Professional Support Issues for Nursing in LTC

There is no specialized professional support for nursing in LTC in WHCC. There was a Clinical Nurse Specialist for gerontology but it was reported that this role was not utilized to its full capacity and/or accepted by all the facilities. As a result this individual left the position. However, given the number of residents/patients who are elderly the region should be providing a professional resource to the nursing staff to ensure they are educated in and supported in implementing best practice in the delivery of long term care.

This role could also be very helpful in assisting with the implementation of changing the roles and responsibilities RNs and LPNs up to ensure they are functioning at the full scope of their practice.

There is no ability to support implementation of regional initiatives designed to improve quality of care which include such things as:

- interdisciplinary model of care
- resuscitation policy
- fall prevention / least restraint program
- foot care program
- wound care program
- clinical competency self assessment

A professional resource for LTC in the region is of primary importance.

Recommendation:

It is recommended that:

(133) **The Chief Nursing Officer should establish a professional resource role for nursing staff in LTC.**

6.5.1.6 *Staffing Levels*

The staffing standard from the DOHCS for nursing in LTC is 3.0-3.5 unity producing staff hours per patient day. It should be noted that significant differences in the organization of long-term care services among provinces makes inter-provincial comparisons of productivity in long-term care facilities quite difficult. This variation in resident care requirements and related staffing levels can be seen in the following comparison of LTC staffing standards from across Canada.

Exhibit 6.70
Nursing Home Standards Canadian Comparisons[64]

Province	Hours of Care	Skill Mix (RN/LPN/PCW)
Newfoundland		
standard	3.0-3.2	20/80/00
actual	3.0-3.5	25/69/06
Nova Scotia	3.25	15/15/70
New Brunswick	2.5-3.0	20/40/40
PEI	3.0-3.5	10/5/85
Ontario	2.6	12/16/1972
Manitoba	2.0-3.0	20/15/65
Saskatchewan	3	20/30/50
Alberta	2.0-4.0	22/02/76
British Columbia	2.0-3.0	n/a

Nursing home care in WHCC includes care that in other provinces might be considered chronic hospital care, nursing home care and personal care. We have drawn on our experience in working in LTC in other provinces to assess the staff:workload relationship in WHCC. The Bay St. George Long Term Care Centre

6.5.1.7 *Description and Operations*

The Bay St. George Long Term Care Centre is a 114-bed facility located in Stephenville Crossing that provides comprehensive and holistic care. The majority of patients are level II and III. Eligibility and level of care is determined by the Regional Assessment Team.

The Home is designed with four separate resident care units. Three of the four units are designed for the functionally impaired, with the remaining unit (Protective Care) designed for those individuals experiencing severe mental impairment and/or organic brain disorders, who require a secure environment. The three open units also have alarm systems on doors and use a patient wander guard system.

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[64] The Department of Health in Newfoundland provided the Best Practices Review team with findings from comparisons made in 2003.

There is a Director of Nursing/Site Coordinator for the Centre. The four units are divided into two areas each with a manager:

South chronic

There is one unit of 33 beds that has 3 short stay beds. The other unit is a 26 bed unit with one bed designated for respite. In these units there is the capacity to for complex continuing care including care residents with chronic ventilation. These units also manage residents with dementia, personality problems, etc. in private rooms as required.

North protective

There is one unit of 33 beds with mostly level III residents. The other unit is a 22 bed secure unit providing protective care. This unit has an average occupancy of about 77%.

6.5.1.8 Facilities/Equipment and Allied Health Support

There is generally sufficient and appropriate space for providing services to this population. In the past 2 years the organization has improved its access to new patients lifts and they will be receiving more. This will assist in keeping work related injuries down.

There is good support from the community pharmacist and the facility uses unit dose. There is the full range of allied support services with recreation therapy workers for each unit.

6.5.1.9 Model of care delivery

There are gaps in clinical leadership at the unit level. RNs do not appear to be coordinating care in the LTC setting. They seem to be occupied with medication and treatments. LPNs are not working to their full scope of practice in all areas and could be doing some of the activities currently performed by RNs. Staff work in teams but there does not appear to be an approach to total patient/resident care.

6.5.1.10 Support for Education, Staff Health and Infection Control

During regionalization, the Centre lost a "director of program" position that did all of the functions associated with WHMIS, occupational health and safety, infection control, policy/procedure development and implementation, and education. Currently there is supposed to be 0.5 of educator allocated to the facility. This role is currently involved in all the regional educational activities. There appear to be limited education activities that are directly applicable to the centre.

The Region should be ensuring that resources are available to support the staff in the facility with respect to education, infection control and occupational health and safety.

Recommendation:

It is recommended that:

(134) The VP Clinical Operations (BSG) and the VP Human Resources should reallocate education resources to support site-specific needs.

6.5.1.11 Productivity and Staffing

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per workload, in this case resident days (Wkd Hr/Resident Day).

Exhibit 6.71
Bay St. George Productivity

Bay St. George	2002/03	2003/04
Total Resident Days	39,135	39,316
Worked Hours	146,996	146,452
Worked Hr/Resident Day	3.76	3.72

This productivity reflects our experience in high performing long-term care facilities in other provinces[65]. As has been discussed, the effectiveness of patient care can be improved by modifying the model of care; additional nursing hours are not required.

6.5.2 *LTC in Corner Brook*

There are a number of overarching issues that impact the quality and efficiency of long term care in Corner Brook.

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[65] Significant differences in the organization of long-term care services among provinces makes inter-provincial comparisons of productivity in long-term care facilities quite difficult. Nursing home care in WHCC includes care that in other provinces might be considered chronic hospital care, nursing home care and personal care. We have drawn on our experience in working in LTC in other provinces to assess the staff: workload relationship in WHCC.

6.5.2.1 *Physical Environment*

The physical facilities of all the sites in Corner Brook are sub-optimal and do not provide the same level of LTC environment available to citizens in other communities in the region. Each facility has some especially difficult physical situations and these will be highlighted in the discussion of each of the facilities. The overall characteristics of the physical facilities include:

- inappropriate space for current use
- lack of space for long term living
- equipment requires more space than is available in room or is available designated storage areas
- electrical service inadequate for equipment needs
- no dining rooms
- lack of privacy, family space
- bathrooms too few and inaccessible
- noisy, congested lounge areas
- medication and treatment rooms inadequate size
- risk for staff providing service moving patients in and around care areas
- deteriorating physical condition of facilities

All of these factors contribute to frequent family issues regarding inappropriate living environment and/or incompatible roommate situations with little or no ability to make changes to address the issues.

The physical environment also places pressure on the LTC program when the acute care environment is also facing pressures of more rapid turnover and decreasing lengths of stay. There is often frustration in the acute care environment when there are "empty" beds in LTC. These beds are usually not able to be used for clients because of the needs of the client for equipment, care/technology supports etc. Often the bed/room space is not adequate to meet the needs of the referred client.

6.5.2.2 *Complexity of Care*

It was reported that the LTC units in Corner Brook are often seen as the place of last resort and the need to deal with increasingly complex patients is high, particularly related to behavioral management. There is a perception that they cannot refuse to take patients even though they may not have the appropriate resources. Although they may be treated like a regional centre, they do not receive any additional funding to manage the complexity of care. Some additional challenges include:

- increasing psycho-geriatric need clients with a lack of programming and psycho-geriatrician support
- inadequate services for integrating young disabled adults
- increasing concentration on end-of-life care with a lack of appropriate resources/support or programming
- increasing levels of dementia (70 - 80% of resident population) with fluctuating needs for protective care
- inconsistent, timely medical support

6.5.2.3 Management Structure

This is a large service spread over 3 sites and this impacts timely communication and clinical coverage. Other LTC in the region is in one location. The adjacency to acute care also limits the adoption of a long term care philosophy, and often impacts the ability of the managers to focus on long term care priorities.

As noted earlier in this report, the organizational structure limits the effectiveness of management. The Site Coordinator reports to the VP, Clinical Operations and other services (environmental, dietary, facilities) report to other VP's. Therefore, the ability of the Site Coordinator to effectively provide a quality service is seriously impacted by the inability to control limited human resources, scheduling, maintenance, etc. Concern was also expressed during the site visit that in Corner Brook this reporting structure does not ensure a voice for nursing concerns at the senior management table.

6.5.2.4 Summary of Operations by Site

The following table presents a summary of each of the LTC in each of the facilities in Corner Brook:

Exhibit 6.72[66]
Corner Brook Long Term Care by Site

Unit	Beds	Budgeted HPPD	Level of Care
O'Connell			
2 VAC	18	4.38	3 Level II's remainder Level III
3 O'CC	22	3.25	1 Level II remainder Level III
4 O'CC	26	3.31	All Level III
Sub-Total	**66**		
WMRH			
5 WMRH	31	3.39	All Level III
6 WMRH	31	3.87	9 Level IV's Remainder Level III
Sub-Total	**62**		
Interfaith			
St. Luke's	34*	3.21	All Level III. *includes 2 respite beds
Good Sam	24	2.96	2 Level II's remainder Level III
NF / ML	45	2.89	4 Level II's remainder Level III
Sub-Total	**103**		
TOTAL	**231**		

6.5.2.5 Corner Brook Inter-faith Home for Senior Citizens

The four units are comprised of

- St. Luke's Unit, a 34 bed unit with 10 semi private rooms, 4 four-bed wards. This unit has 34 long term care beds for level III frail elderly and some residents with dementia. There are 2 respite beds within these 34 beds in which priority is given to persons with dementia who don't require protective care.
- Good Samaritan Unit a 24 bed unit with 8 semi-private and 8 private rooms. The unit provides care for residents requiring level II and III care.
- Newfoundland Unit a 24 bed unit with 8 semi-private and 8 private rooms. This unit provides care for residents requiring level II and III care.

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[66] Table provided by WHCC Director of Nursing, LTC.

- Memory Lane Unit, a 21 bed unit with 10 semi-private and 1 private room. This unit also provides care for residents requiring level II and III care.

Issues in Operations/Management

This was a personal care home that has evolved into LTC. There are significant issues of space in this facility in the resident rooms. This often leads to significant issues for simple things such as access to closet space, placement of chairs in a room, access to bathrooms. There are not closets for residents in many of the rooms. Bathrooms often serve as an area for storage of personal clothing and items. There is significant difficulty in moving wheelchairs and/or beds particularly in Memory Lane.

All of the physical problems result in staff having to move equipment and residents frequently. There are frequent issues associated with room changes.

6.5.2.6 J. I. O'Connell Centre

Operations

The J.I. O'Connell Centre is a 66 bed facility. Eighteen of these beds are the Western Newfoundland Veterans Unit, and 8 beds are an adult rehabilitation unit. The 8 rehabilitation beds are counted in the acute care bed counts for the WMRH site.

The 5th and 6th Floors of Western Memorial Regional Hospital are long term care units and are associated with the J.I. O'Connell Centre. The 5th Floor is a 31 bed secure care unit for persons suffering from dementia. The 6th Floor has residents who require complex care, long term care and transitional care.

Issues of Operations/Management

The 2nd level VA unit has had recent renovations under the auspices of the Department of Veteran's Affairs to improve the physical environment. This has created a much more environmentally friendly living and working space.

The remaining units in the O'Connell Centre have rooms that do not accommodate needs of many current/potential residents for the type of equipment and supportive care etc. they require.

6.5.2.7 *Productivity and Staffing for LTC in Corner Brook*

Productivity is measured as the total worked hours (unit producing and management and operational support) per workload, in this case patient days (Worked Hr/Pt Day) and is shown in Exhibit 6.73.

Exhibit 6.73
Corner Brook LTC Workload & Productivity

Corner Brook LTC	2002/03	2003/04
O'Connell Patient Days	44,673	44,365
Interfaith Home Patient Days	36,955	35,890
Total LTC Patient Days	81,628	80,255
Worked Hours	310,649	304,618
Worked Hr/Pt Day	3.81	3.80

Rehab Patient Days	2,554	2,265
Worked Hours	17,460	17,338
Worked Hr/Pt Day	6.84	7.65

Hours/patient day are slightly higher in LTC in Corner Brook and may be related to the following:

- Additional and separate funding for a higher level of staff for the Veteran's Unit.
- Poor physical facilities requiring additional staff levels especially in Interfaith and O'Connell.
- Higher complexity of patients.
- Low occupancy on the protective unit.

However, the productivity of this service reflects our experience in high performing long-term care facilities in other jurisdictions[67]. As has been discussed, the effectiveness of patient care can be improved by modifying the model of care; additional nursing hours are not required. The current level of nursing productivity should be maintained.

There is a concern regarding the productivity for the rehab unit. This is a very small unit and small units are very inefficient. WHCC should explore ways of utilizing the staff of the rehabilitation unit more productively perhaps by using them to provide support for LTC patients.

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[67] Significant differences in the organization of long-term care services among provinces makes inter-provincial comparisons of productivity in long-term care facilities quite difficult. Nursing home care in WHCC includes care that in other provinces might be considered chronic hospital care, nursing home care and personal care. We have drawn on our experience in working in LTC in other provinces to assess the staff: workload relationship in WHCC.

The following table shows that in jurisdictions in Ontario nursing productivity in inpatient rehabilitation ranges from 3.8-6.1 worked hours per patient day.

It is suggested that the organization use the maximum performance level of 6.14 worked hours per patient day as a target for rehabilitation. The unit is using minimum staffing levels of 2 per shift. Because of the location of this unit (within a LTC unit) it may not be necessary to provide this type of coverage on evenings or nights. Staffing could be reduced to 1 person with back up support and relief being provided from the co-located LTC unit.

Exhibit 6.74
Rehabilitation Comparisons

2002/03 Data - Ontario Peers	Valid N	25th Percentile	50th percentile	75th Percentile	Minimum	Maximum	Mean
712813000 Combined Rehabilitation	18	4.3070	4.7070	5.0137	3.7624	6.1368	4.7283

Recommendation:

It is recommended that:

(135) The Director of Nursing should reduce staffing for the rehabilitation service to achieve productivity of 6.14 worked hours per patient day.

6.5.2.8 Potential Service Consolidation

Protective Units in LTC

As noted above, there has been a challenge in keeping sufficient occupancy to ensure efficient use of staff assigned in the protective units in Bay St. George and in Corner Brook. The Region is encouraged to consolidate this service in one location to use the specialized resources required for care of this population most effectively.

Recommendation:

It is recommended that:

(136) The Vice Presidents for Clinical Operations should consolidate protective services for LTC residents in the region onto one site.

6.6 Therapeutic Services

6.6.1 Pharmacy

6.6.1.1 Current Characteristics

The Pharmacy department is led by a Regional Director of Pharmacy. This individual also has responsibility for Respiratory Therapy for the organization. The Regional Director reports to the Vice President of Clinical Operations. In the matrix structure adopted by WHCC, this means that the Regional Director reports to all three Vice Presidents if Clinical Operations in the Corporation.

Western Health Care Corporation has three hospital pharmacy departments. They are located at Dr. Charles L. LeGrow Health Centre, Sir Thomas Roddick Hospital and the Western Memorial Regional Hospital. These sites provide pharmacy services to the various hospitals, LTC facilities and medical clinics in the region as follows:

- The Western Memorial Pharmacy provides Pharmacy Services to Rufus Guinchard, Bonne Bay and Calder Health Centres as well as the Corner Brook Interfaith Home, O'Connel Centre and Western Memorial sites.
- The Charles LeGrow Pharmacy provides services to the acute care and long term care residents at the site. In addition, it provides Pharmacy services to the medical clinics at Lapoile and the Codroy Valley.
- Sir Thomas Roddick provides pharmacy services to the acute care patients at the site and to the medical clinics at Lourdes, Cape St. George Medical Clinic, Jeffrey's, Stephenville Crossing, and St. George's.

Chemotherapy services are provided at all three pharmacy sites. Total parenteral nutrition services (TPN) are provided at the Western Memorial site. Outpatient services at the WMRH site include provision of anti-rejection medications for transplant patients plus work-up for transfer to Halifax or Ontario, medication for renal dialysis patients and clinical trials involving Remacade.

The Respiratory Therapy function at the WHCC was previously lead by a separate Director. Currently the service comes under the portfolio of the Regional Director of Pharmacy. A Clinical Leader, who is also a working Respiratory Therapist (RT) with a caseload, provides practice leadership for the program. There are 3 other RTs that provide

24/7 coverage for the Western Memorial Regional Hospital. Sir Thomas Roddick Hospital in Stephenville also has 1 RT.

6.6.1.2 Issues in Management and/or Operations

The following issues related to pharmacy management and operations were identified through site visits and interviews:

- The pharmacy department operates three different drug distribution systems:
  - Unit Dose Drug Distribution for acute care patients at the Western Memorial Site (Corner Brook).
  - Traditional drug distribution for acute care at the Sir Thomas Roddick Hospital (Stephenville).
  - Ward Stock system for acute care at the LeGrow site.
  - LTC drug distribution for the region is a mixture of the 34 –day carded system and a traditional system.
- Operating three different drug distribution systems can be costly and inefficient for the organization. Numerous studies concerning unit dose drug distribution systems have been published indicating that they are superior over other drug distribution methods because they are:
  - safer for the patient
  - more efficient and economical for the organization, and
  - a more effective method of utilizing professional resources[68].
- Space needs and staffing has been described as the major impediments to improving drug distribution systems. Our review of the facilities indicate that at the Western Site (Unit Dose), space is limited but well organized and used. The Sir Thomas Roddick Hospital, is a brand new, well designed space that is ready to accommodate a unit dose system. An external, third-party space review was completed for Pharmacy services at the LeGrow site which has indicated a need for additional space for the service. It has been recognized that if Sir Thomas Roddick and LeGrow sites are to move towards a unit dose drug distribution system then capital investment will be required and pharmacy labour costs may increase.

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[68] American Society of Hospital Pharmacists. ASHP statement on unit dose drug distribution. Am J Hosp Pharm. 1989; 46:2346.

- There is no standardized workload measurement system in place for pharmacy in the province. This is problematic because it makes managing resources in the department difficult. There is a provincial group trying to implement MIS guidelines and a pilot project was planned but it was reported that there was no funding available.
- Although presently the department is fully staffed for all approved positions, there have been pockets of recruitment problems. There are limited continuing education opportunities which complicate retention efforts. It has been reported that recruitment is difficult as community retail pharmacy salaries are significantly higher than those available in WHCC.
- The Pharmacy Department and the P&T committee are responsible for the ongoing maintenance of the formulary. The P&T committee is a subcommittee of the MAC and meets after Regional MAC meetings. The director has described difficulty in receiving compliance with the drug formulary from some physicians, indicating instances where non-formulary drugs are used and guidelines not being followed. The P & T Committee has experienced difficulty in organizing education sessions with physicians. It has been reported that physicians are unengaged and uninterested in committee work. To be effective, the formulary system must have the approval of the organized medical staff, the concurrence of individual staff members, and the functioning of a properly organized P&T committee of the medical staff. The basic policies and procedures governing the formulary system should be incorporated in the medical staff bylaws or in the medical staff rules and regulations[69]. And the policies must be enforced aggressively by the RMAC.
- Pharmacy involvement on the clinical floors is limited. There is currently 1 FTE dedicated position to manage antibiotic utilization as well as 0.6 FTE positions for an ICU pharmacist.
- The Meditech Pharmacy information system module is in use at WHCC, however there is a different information system used for LTC (Bonne Bay, Burgeo, Port Saunders). LTC is being billed to the province using this system. This other system is not interfaced with the Meditech system

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[69] American Society of Hospital Pharmacists. ASHP statement on the formulary system. Am J Hosp Pharm. 1983; 40:1384–5.

and creates manual work to integrate and update patients records. In addition, it poses risks as a separate repository for patient information may result in inability to manage potential adverse drug-drug interactions.

- It has been reported that medication is routinely administered to outpatients. Also, some patients are coming to the hospital for no reason other than to receive an injection.

6.6.1.3 Opportunities to Reduce Operating Costs

Pharmacy workload is currently not being reported in the hospital's MIS statistical data. As mentioned above, there is no formal workload measurement system in place for the region. There is a provincial group responsible for developing a workload system, however none has been put in place and the future progress has been impeded for lack of funding for a pilot project.

In lieu of workload data, drug costs were examined as a measure of the performance of the pharmacy department. The drug costs presented below, exclude extra votes and drug costs related to oncology and dialysis so as not to skew the analysis. 2003/04 data for WHCC is projected based on nine months of data.

Exhibit 6.75
Comparison of Drug Costs as a Percent of Net Operating Costs

WHCC	2003/04	2.56%
	2002/03	2.47%
	2001/02	2.66%
2002/03 Peer Data	25th %ile	2.11%
	Median	2.54%
	75th %ile	2.91%
	Min	0.70%
	Max	3.73%
	# Peers	8

As can be seen from this exhibit, WHCC drug costs as a percentage of net operating costs in 2002/03 lie between the median and the 75th percentile of the peer group. If WHCC achieved the performance level midway between the 25th percentile and median peer group performance, then this would result in $190,000 in savings for the organization.

There are number of factors that may be contributing the high drug costs at WHCC compared to the peer hospitals. They are as follows:

- The use of ward stock and traditional drug distribution at two of the WHCC sites. Unit dose systems have been proven to be more effective and economical than alternative distribution systems. Unit dose systems allow for a reduction in the size of inventories located in the patient care areas.
- Lack of adherence to the formulary, the interview process revealed that there are often cases where non-formulary drugs are used and this may result in an expensive non-formulary drug being used when a less expensive substitute is available.
- The transportation costs associated with moving drugs across WHCC sites and medical clinics could also be a contributing factor to the high drug costs.
- Pharmacy purchasing is not centralized; technicians on site also function as buyers. De-centralization of this function may result in, missed opportunities for volume discounts, lack of control on inventory and missed credits for expired medications.

Converting to unit dose drug distribution system will reduce overall drug expenditures and promote drug safety. However, based on our experience in other hospitals, there are additional labour costs associated with a unit-dose systems. Site interviews with the director indicated that the plans are in place for fully converting WHCC to unit dose system utilizing the existing resources.

Increased pharmacy participation in multidisciplinary teams can assist in reducing costs and ensuring adherence to the formulary. Pharmacists can suggest more appropriate (often lower cost) drugs and changes in dosage and scheduling of drugs.

In addition, the pharmacy Director can identify the top ten highly utilized drugs by clinical program and evaluate their appropriateness and if possible suggest lower cost substitutes. According to a document provided to us by the Director, the following three agents are examples of expensive drugs that account for significant cost[70]:

- Tenecteplase 50mg vial $213,300
- Sevoflurane anesthetic agent $100,200
- Botox $82,280

Also, appropriate shifts from intravenous to oral drug administration, especially for antibiotics, can result in significant savings in drug costs and also reductions in lengths of stay.

Based on our site observations and interviews we believe there are opportunities for the Pharmacy Department to improve its drug cost performance. The pharmacy department should utilize existing resources to implement a single unit-dose system for the region and strengthen formulary management. With these improvements, the department should be able to realize a reduction in overall drug costs. The Director of Pharmacy should establish a target for WHCC drug costs at the best quartile performance of peer hospitals; 2.11% of Net Operating Costs.

Recommendations:

It is recommended that:

(137) The Director of Pharmacy should work with the P&T Committee to develop additional policies to strengthen physician compliance to the region's formulary.

(138) The Director of Pharmacy should work with the P&T Committee to improve drug utilization and monitoring.

(139) The Director of Pharmacy should implement a single unit-dose distribution system across the organization.

(140) The Director of Pharmacy should work with the P&T Committee to reduce the amount of medication being provided to hospital outpatients.

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[70] "Can we review the use of high priced drugs with a view of substituting more cost effective agents" Budget Consultations 2004/2005

(141) The Director of Pharmacy should establish a target for WHCC drug costs at 2.33% of Net Operating Costs.

6.6.2 Rehabilitation Services

6.6.2.1 Current Characteristics

Rehabilitation Services at WHCC include Physiotherapy, Occupational Therapy, Social Work, Psychology and Employee Assistance Services. The Rehabilitation Services portfolio is lead by a Regional Director who reports to the Vice President of Clinical Operations. Given the matrix structure of the organization, this Regional Director actually reports to three VP of Clinical Operations. The Regional Director is supported by an Assistant Director located primarily at the Stephenville site and who has responsibility for the rural sites of Port aux Basque, Calder, Bay St. George, Adult Rehab in Corner Brook and the O'Connel Centre. The Regional Director is located at Corner Brook site and also covers the rural sites of Bonne Bay and Port Saunders.

The majority of physiotherapy services are inpatient based. The most serviced clinical areas are Orthopaedics, Cardio Respiratory and Adult Rehabilitation. Outpatient physiotherapy services are mostly related to motor vehicle accidents and joint-related cases.

Occupational therapy services are mostly inpatient-based, with general medicine being the most highly serviced clinical program.

An Adult Rehabilitation program that treats patients with amputation, strokes and MVAs is established at the Corner Brook site. There are RNs, LPNs and a physiatrist attached to this program in addition to occupational therapy, physiotherapy, social work and dietician resources.

Social Work services consist of educating the clinical teams on emphasis of short-term interventions. There is a focus on discharge planning.

The Employee Assistance program is provided to all WHCC sites. The resources for this program are social workers and they focus on workplace wellness and education. They are physically located on the WMRH and STRH sites.

There is 1 FTE psychologist for the region to provide psychology services. This individual is primarily responsible for acute and LTC services at Corner Brook and supports psychiatry, but also takes referrals from other areas.

6.6.2.2 Issues in Management and/or Operations

The following issues related to rehabilitation services management and operations were observed through site visit interviews:

- The matrix management organization structure for this portfolio has created some challenges in delivering services. Directors have reported that some therapists are not performing enough of the required clinical duties.
- The Regional Director is responsible for a wide range of disciplines in this portfolio and it is not possible to take on professional practice leadership duties for all of these disciplines.
- Physiotherapy services at the Corner Brook site are located in a facility that lacks assessment beds; staff often need to move patients to a different part of the hospital. There is a general lack of space in the department that can impact patient confidentiality and service effectiveness.
- It has been reported that the geography and weather can be a challenge in providing rehabilitation services across the region. The lack of staff to service rural areas impacts operations and the ability to meet rehabilitation needs in the region. A model that is being developed involves a "traveling clinic", wherein a team of rehabilitation professionals will travel to sites and provide services. However, the availability of resources to provide this kind of service is the barrier to implementation.
- Gaps in physiotherapy and occupational therapy services were described to the consultants. It was reported that there is an inadequate service response to the needs of patients in adult rehabilitation, long term care, palliative care, chronic disease management and outpatient physiotherapy. Inadequate human resources was reported to be the major barrier in meeting these client needs.

- A recent review of human resources provided to the Health and Community Services Health Human Resource Planning Committee[71] indicate that for the western region, there are 6.5 more occupational therapist positions required to meet the recommended inpatient, ambulatory, community and long term care staffing ratios. HayGroup has not been able to obtain a final copy of this report and therefore we have not reviewed the analysis. We provide the reference to this study for information purposes. Detailed productivity analysis using hospital and peer workload data is provided in the following section.

6.6.2.3 Opportunities to Reduce Operating Costs in Physiotherapy

Physiotherapy and Occupational Therapy follow the MIS guidelines workload measurement system. There is currently no workload measurement system for social work implemented at WHCC. The following exhibits describe the productivity of the physiotherapy functional centres for the WHCC sites. Total worked hours is the sum of UPP and M&O hours for the functional centre and workload is measured in terms of visits[72] and telephone contacts.

Exhibit 6.76 shows physiotherapy workload and FTEs for Western Memorial Regional Hospital and Rufus Guinchard Health Centre. Physiotherapy at WMRH provides support to RGHC. These exhibits exclude the O'Connell & Interfaith Homes.

Exhibit 6.76
WMRH/RGHC Physiotherapy Visits & FTEs

WMRH & RGHC	2002/03	2003/04
Total Visits	15,238	14,126
Total Worked Hours	12,347	13,209
FTE	7.38	8.11

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per visit (worked hrs/visit). As indicated in Exhibit

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[71] Current Supply and Gaps in Service Issues for Physiotherapy, Occupational Therapy and Speech Language Pathology in Newfoundland and Labrador: A Consultation Document. This was prepared by the Allied Health Human Resources Planning Committee for the Health and Community Services Human Resources Sector Study. The final document/report of the Health and Community Services Human Resources Sector Study can be found on www.nlhba.nf.ca.

[72] In this characterization, a visit is used to represent a physiotherapy attendance

6.77, productivity of WMRH & RGHC has decreased from 2002/03 to 2003/04. 2003/04 productivity is above the worst quartile peer performance level.

Exhibit 6.77
WMRH/RGHC Comparison of Physiotherapy Productivity
(Worked Hours/Visit)

	2002/03	2003/04
Wkd Hr/Visit	0.81	0.94

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	14	0.70	0.80	0.87	0.82

Meeting the physiotherapy needs of RGHC may be contributing to the poor productivity for this functional centre, due to the travel time required to reach Port Saunders. However, even after taking into account the need to support RGHC, the median level of productivity performance of the peer organizations should be attainable by this functional centre. If it achieved the median level performance of its peers, then it would have required 5.79 FTEs to provide for 14,126 attendances.

Recommendation:

It is recommended that:

(142) The Regional Director should adjust staffing to achieve productivity of 0.80 hours per visit for physiotherapy services at the WMRH & RGHC.

The following exhibit shows physiotherapy workload and FTEs for Sir Thomas Roddick Hospital, Calder Health Centre and Bay St. George LTC. Physiotherapy at STRH provides support to Calder and Bay St. George.

Exhibit 6.78
STRH Physiotherapy Visits & FTEs

	2002/03	2003/04
Total Visits	4,080	6,101
Total Worked Hours	6,643	7,540
FTE	3.40	3.94

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per visit (worked hrs/visit). As indicated in the following exhibit, productivity of STRH has decreased from 2002/03 to 2003/04. Productivity in 2003/04 worse than the worst quartile peer performance level.

Exhibit 6.79
STRH Physiotherapy Productivity Comparison
(Worked Hours/Visit)

	2002/03	2003/04
Wkd Hr/Visit	1.63	1.24

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	11	0.76	0.80	1.05	0.91

Understanding the possibility of a different model of care that may not be comparable to the peers, we removed BSG LTC data and then re-calculated productivity for STRH. There was no appreciable difference as the resulting productivity was consistent with the levels presented above. Additional workload associated with travel time to service Calder and BSG could be contributing to poor performance. Taking into account the need to support these remote sites, it is recommended that this functional centre aim to achieve the worst quartile performance level. This would result in 2.91 FTE based on 5,413 attendances.

Recommendation:

It is recommended that:

(143) The Regional Director should adjust staffing to achieve productivity of 1.05 worked hours per visit for physiotherapy services at the STRH & supported sites.

Exhibit 6.80 shows physiotherapy workload and FTEs for Bonne Bay Health centre.

Exhibit 6.80
BBHC Physiotherapy Visits & FTEs

	2002/03	2003/04
Total Visits	2,398	2,250
Total Worked Hours	1,912	1,931
FTE	1.57	1.50

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per visit (worked hrs/visit). As indicated in Exhibit 6.81, productivity of Bonne Bay has decreased from 2002/03 to 2003/04. 2003/04 productivity is between the median and worst quartile peer performance level.

Exhibit 6.81
Comparison of BBHC Physiotherapy Productivity
(Worked Hours/Visit)

	2002/03	2003/04
Wkd Hr/Visit	0.80	0.86

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	11	0.76	0.80	1.05	0.91

Based on the information provided to us by WHCC, if this functional centre had achieved the best quartile level of performance then it would have required 0.88 FTEs for 2,250 attendances.

Exhibit 6.82 shows physiotherapy workload and FTEs for Charles L. LeGrow Health Centre.

Exhibit 6.82
LeGrow HC Physiotherapy Visits & FTEs

	2002/03	2003/04
Total Visits	1,605	633
Total Worked Hours	1,580	2,283
FTE	0.93	1.25

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per visit (worked hrs/visit). As indicated in Exhibit 6.83, productivity of LeGrow in 2002/03 was in between the median and worst quartile peer performance level[73].

Exhibit 6.83
Comparison LeGrow HC Physiotherapy Productivity
(Worked Hours/Visit)

	2002/03	2003/04
Wkd Hr/Visit	0.98	3.61

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	11	0.76	0.80	1.05	0.91

Based on the information provided to us by WHCC, if this functional centre had achieved the best quartile level of performance then it would have required only 0.62 FTEs for 1,605 attendances.

Based on the findings of this review, we feel that Bonne Bay and LeGrow Health Centres should be able to achieve the best quartile level performance in their delivery of physiotherapy services.

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[73] 2003/04 data for LeGrow were not used for the analysis.

Recommendation:

It is recommended that:

(144) The Regional Director should adjust staffing to achieve productivity of 0.76 worked hours per visit for physiotherapy services at Bonne Bay and LeGrow Health Centres.

6.6.2.4 Opportunities to Reduce Operating Costs in Occupational Therapy

Exhibit 6.84 shows Occupational Therapy workload and FTEs for Western Memorial Regional Hospital. The FTE and hours shown do not include the OT support to LTC in Corner Brook. In 2002/03, this constituted 2.72 FTE and 4,317 worked hours.

Exhibit 6.84
WMRH Occupational Therapy Visits & FTEs

	2002/03	2003/04
Total Visits	4,639	2,731
Total Worked Hours	7,146	5,205
FTE	4.48	3.22

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per visit (hrs/visit). As indicated in Exhibit 6.85, productivity of WMRH is significantly above the worst quartile performance level.

Exhibit 6.85
WMRH Occupational Therapy Total Productivity Comparison (Worked Hours/Visit)

	2002/03	2003/04
Wkd Hr/Visit	1.54	1.91

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	13	0.87	1.14	1.23	1.06

Based on the information provided to us by WHCC, if this functional centre had achieved the best quartile level of performance then it would have required 1.21FTEs for 2,731attendances. Exhibit 6.86 shows Occupational Therapy workload and FTEs for the Work Assessment Western Memorial Regional Hospital. In 2003/04, this constituted 3.98 FTE and 1,071 worked hours.

Exhibit 6.86
WMRH Work Assessment Occupational Therapy Visits & FTEs

	2002/03	2003/04
Total Visits	1,219	1,071
Total Worked Hours	5,134	6,436
FTE	3.22	3.98

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per visit (hrs/visit). As indicated in Exhibit 6.87, productivity of WMRH is significantly worse than the worst quartile performance level of the peer organizations.

Exhibit 6.87
WMRH Work Assessment Occupational Therapy Total Productivity Comparison (Worked Hours/Visit)

	2002/03	2003/04
Wkd Hr/Visit	4.21	6.01

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	13	0.87	1.14	1.23	1.06

Based on the information provided to us by WHCC, if this functional centre had achieved the best quartile level of performance then it would have required 0.48 FTEs for 1,071 visits.

Exhibit 6.88 shows Occupational Therapy workload and FTEs for Charles L. LeGrow Health Centre.

Exhibit 6.88
LeGrow HC Occupational Therapy Visits & FTEs

	2002/03	2003/04
Total Visits	638	N/A
Total Worked Hours	2,585	2,465
FTE	1.55	1.48

Productivity is measured and compared as the total worked hours (unit producing and management and operational support) per visit[74] (hrs/visit). As indicated in Exhibit 6.89, productivity of LeGrow is significantly above the worst quartile performance level.

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[74] In this characterization, a visit is used to represent an occupational therapy attendance

Exhibit 6.89
LeGrow HC Occupational Therapy Productivity Comparison
(Worked Hours/Visit)

	2002/03	2003/04
Wkd Hr/Visit	4.05	

Productivity Range	Peers	Best Quartile	Median	Worst Quartile	Mean
Wkd Hr/Visit	13	0.87	1.14	1.23	1.06

Based on the information provided to us by WHCC, if this functional centre had achieved the best quartile level of performance then it would have required 0.28 FTEs for 638 attendances.

The Regional Director should consider re-organizing the model of occupational therapy care to better utilize the current staffing to meet patient care requirements and improve productivity. With improved work processes, we feel that occupational therapy should be able to achieve the median productivity performance of the peer organizations.

Recommendations:

It is recommended that:

(145) The Regional Director should adjust staffing for Occupational Therapy at Western Memorial Regional Hospital to achieve productivity of 1.14 worked hours per visit.

(146) The Regional Director should adjust staffing for Occupational Therapy at Charles L. LeGrow Health Centre to achieve productivity of 1.14 worked hours per visit.

6.7 *Diagnostic Services*

6.7.1 *Clinical Laboratories*

6.7.1.1 Departmental Description

The WHCC clinical laboratories encompass a core laboratory at STRH and WMRH as well as Specimen Collection, Microbiology at the WMRH site, Pathology, Cytology, Histology and morgue operations. EEG and EKG at the WMRH also fall under laboratory services.

The Health Centres of WHCC offer basic specimen collection and haemotology services while all other laboratory requirements are sent to the WMRH site.

The following table presents the FTE counts for the Clinical Laboratories:

Exhibit 6.90
WHCC Clinical Laboratories FTEs

	2002/03	2003/04
Clinical Laboratory – Bonne Bay	1.70	1.70
Clinical Laboratory - LeGrow	8.46	6.13
Core Laboratories - STR	16.66	15.18
Clinical Laboratory - Calder	4.62	3.22
WMRH – Gen Admin	4.2	5.13
WMRH – Procurement	11.03	11.81
WMRH – Anat. Path.	8.10	9.52
WMRH – Microbiology	10.12	10.67
WMRH – Combined	22.72	20.63
WHCC Laboratory Total	87.61	87.79

6.7.1.2 Organization Design

The regional Director Laboratory services reports directly to the VP Clinical Operations – Corner Brook and in a matrix model is also responsible to the VP Clinical Operations BSG and Rural. There are two Assistant Directors. Assistant Director A has responsibility for Core Laboratory functions, EEG and EKG services at WMRH and as well as all clinical laboratory operations at STRH and LeGrow Health Centre. Assistant Director B is responsible for patient processing / specimen referral, pathology/cytology/histology/morgue and microbiology at the WMRH site as well as all clinical laboratory operations for Bonne Bay, Rufus and Calder Health Centres.

6.7.1.3 Facilities, Equipment and Supplies

The following observations and findings are made:

- Equipment platforms are not standardized across the region.
- Management has identified the need to replace Core Laboratory equipment at all sites in the Region with the exception of WMRH. Outdated equipment has contributed to excessive maintenance costs and to quality concerns arising from excessive downtime.
- Management has identified a particularly urgent need to replace a number of hematology analyzers that will no longer be supported by the vendor as of December 31, 2004. To avoid a lapse in service, management has identified September 1, 2004 as the deadline for issuing a purchase order to replace this equipment.

- Based upon the current ordering practices and test volumes, the obsolete hematology analyzers should be replaced. Management has a recommended replacement approach based on responses to a tender issued in early 2004.
- Management has recommended the replacement of equipment and revising test menus and is awaiting approval from the Department to proceed. The approval required from the Department is the ability to use budgeted operating funds towards a capital lease.

6.7.1.4 Operations Review

The following observations and findings are made:

- A core laboratory operation was initiated at WMRH to provide service efficiencies; it began operation in February 2003.
- Over the past year, clinical laboratory workload reporting was updated based on the provincial MIS guidelines with the addition of new codes and functions.
- Management reports that test menus at the various sites throughout the region have not been changed for several years. Management has undertaken an extensive and comprehensive review of the test menus and prepared a proposal for a revised test menu for each location. The proposed test menu was developed with extensive consultation and input. Implementation of these recommendations should result in improved operational efficiency.
- Based on the proposed test menus, management has identified the potential for cost avoidance through the downsizing of equipment and adjustment of staff schedules.

6.7.1.5 Productivity and Staffing

The Clinical Laboratories productivity is measured as the total worked hours per patient care workload unit. To facilitate appropriate comparisons and minimize reporting differences, staffing and workload for all clinical laboratory operations have been consolidated. The department's consolidated productivity is presented in the following exhibit.

Exhibit 6.91
Laboratory Productivity Comparison

Clinical Laboratory – All combined		Worked Hours / Workload Unit
WHCC	2002/03	0.0185
	2003/04	0.0169
Peer Range 2002/03	Best Quartile	0.0191
	Median	0.0221
	Worst Quartile	0.0252
	Number of Peers	14

Based on the information provided by the corporation, clinical laboratory performance is better than the best quartile performance of the peer organizations. The performance improvement from 2002/03 to 2003/04 is largely attributed to changes in workload data collection and measurement practices at WHCC. However, based on our on-site interviews, observations and analyses, and as already identified by management, there are opportunities to further improve efficiencies and overall service delivery through:

- Revision of site specific test menus
- Downsizing of equipment in relation to revised test menus
- Adjustment of staffing schedules in relation to revised test menus
- The acquisition of laboratory equipment through reagent leases versus capital purchases

Recommendation:

It is recommended that:

(147) The Regional Director, Laboratory services should review and revise as necessary the proposed test menus and equipment requirements, in relation to the clinical service adjustments arising out of this review.

6.7.2 *Diagnostic Imaging*

6.7.2.1 Departmental Description

The WHCC Diagnostic Imaging service encompasses General Radiology, X-ray, Mammography, Computed Tomography, Ultrasound, Nuclear Medicine, BMD, ECG as well as the Provincial Breast Screening Program.

The following table presents the FTE counts for Diagnostic Imaging:

Exhibit 6.92
WMRH Diagnostic Imaging FTEs

WMRH	2002/03	2003/04
D. I. – General	3.17	3.79
X-Ray	34.72	32.15
Mammography	4.82	3.65
Ultrasound	3.63	4.00
Diagnostic Cardiology	5.79	4.65
Electrodiagnosis	0.96	0.99
Interventional Angio	0.78	3.85
CT	7.56	5.55
Nuclear Medicine	2.19	1.97
DI Total	63.62	60.60

Exhibit 6.93
STR Diagnostic Imaging FTEs

STR	2002/03	2003/04
X-Ray	12.38	10.83
Mammography	0.00	0.94
Ultrasound	1.41	1.24
Diagnostic Cardiology	1.99	1.99
DI Total	15.78	15.00

Exhibit 6.94
Other sites, Diagnostic Imaging FTEs

	2002/03	2003/04
D.I. – General – Bonne Bay	5.62	4.43
D.I. – General – Rufus	6.47	4.81
D.I. – General – Calder	2.50	2.50
X-Ray – LeGrow	6.92	5.92
DI Total	21.51	16.86

Exhibit 6.95
TOTAL WHCC Diagnostic Imaging FTEs

WHCC	2002/03	2003/04
DI Total	100.91	92.46

6.7.2.2 Organization Design

The regional Director Diagnostic Imaging Services reports directly to the VP Clinical Operations – Corner Brook and in a matrix model is also responsible to the VP Clinical Operations BSG and Rural. There are two Assistant Directors. Assistant

Director A has responsibility for CT, Interventional radiology, Mammography, nuclear medicine, the provincial breast screening program as well as all diagnostic imaging operations at STRH, Bonne Bay and Rufus Health Centres. Assistant Director B is responsible for BMD, Ultrasound, ECG at the WMRH site as well as all diagnostic imaging services at the Deer Lake clinic, LeGrow and Calder Health Centres. The two directors share responsibility for both General X-ray and operations at STRH.

6.7.2.3 Facilities, Equipment and Supplies

The following observations and findings are made:

- PACS has not yet been implemented by the WHCC. It has been implemented in all other provincial regions. A portion of the capital required for this implementation has been provided by the Provincial government.
- A number of the general x-ray rooms are greater than 25 years old and require replacement.

6.7.2.4 Operations Review

The following observations and findings are made:

- WHCC, like other regions, have had great difficulty recruiting radiologists. The radiologist position at STRH has been vacant for two years while 2 positions at the WMRH have been vacant for approximately a year.
- The shortage of radiologists has contributed to poor utilization and the inability to manage inappropriate ordering of exams and has also made it difficult to enforce various clinical protocols and guidelines. (Management has noted that there are no established protocols for ECG, carotid Doppler and renal colic.)
- Western Region residents are experiencing extended wait times for diagnostic imaging exams as a result of the shortage of radiologists.
- Management has identified the need to schedule examinations in a manner that allows patients to access the next available appointment and the service closest to their residence.
- The increase in oncology services at WMRH has increased the workload for diagnostic services particularly in CT and nuclear medicine.

6.7.2.5 Productivity and Staffing

The Diagnostic Imaging productivity is measured as the total worked hours per patient care workload unit. To facilitate appropriate comparisons and minimize reporting differences, all diagnostic imaging operations have been consolidated. The department's productivity is presented in the following exhibit.

Exhibit 6.96
Diagnostic Imaging Productivity Comparison

Diagnostic Imaging – All combined		Worked Hours / Workload Unit
WHCC	2002/03	0.0616*
	2003/04	0.0380
Peer Range 2002/03	Best Quartile	0.0393
	Median	0.0452
	Worst Quartile	0.0555
	Number of Peers	14

* Reported workload in 2002/03 appeared to be incomplete. In 2003/04 the department was more efficient than the best quartile performance of the peer organizations from across Canada.

Recommendations:

It is recommended that:

(148) The VP Clinical Operations and the Regional Director, Diagnostic Imaging services should expedite acquisition and implementation of a regional PACS in WHCC.

(149) The VP Clinical Operations and the Regional Director, Diagnostic Imaging services should develop a comprehensive capital equipment replacement and **renewal strategy.**

6.8 Support Services

6.8.1 Food services

6.8.1.1 Departmental Description

The Food services department operates conventional kitchens throughout the Western Region providing meals for both acute and long-term care. In addition, the department provides Catering and Cafeteria services as well as Clinical Nutrition to all regional sites.

The WMRH kitchen serves both the WMRH and the O'Connell Centre. A stand alone kitchen exists at the Corner Brook Interfaith Home while LeGrow, Bonne Bay, Rufus and Calder Health Centres each provide tray and dining service for their residents. The kitchen at Bay St. George provides meal services for both the residents and the acute care patients at STRH. There is also a cafeteria operating at STRH. The following table presents the FTE counts for Food Services:

Exhibit 6.97
WHCC Food Services FTEs

	2002/03	2003/04
Food Services - WMRH	62.95	62.86
Food Services – Bonne Bay	7.38	7.60
Food Services – Calder	7.32	6.63
Food Services – STR	5.10	4.65
Food Services – LeGrow	10.77	10.99
Food Services – Rufus	7.66	7.11
Food Services – BSG	28.06	26.91
Food Services - Interfaith	26.26	26.17
Total	155.50	152.92

6.8.1.2 Organization Design

Food Services report through a Regional Director, Nutritional Services to the VP Corporate Services and CFO. At sites outside of Corner Brook, Nutritional Services staff report to a Support Services Manager (if the site has one) or the Site Coordinator for daily issues.

6.8.1.3 Operations Review

The following observations and findings are made:

- The WMRH kitchen provides meals for both the WMRH and the O'Connell Centre. The O'Connell Centre meals are provided through tray services as well as dining room service.
- The consolidation of meal preparation for WMRH and the O'Connell centre has achieved efficiencies and required implementation of an advanced transportation systems. The same transportation system is in place between BSG and STRH for the acute meals provided to STRH. There are further opportunities to consolidate meal preparation within the region, such as the Corner Brook Interfaith Home, that would further reduce operating costs

- The dietary system at WMRH (DFM – Dietary Food Management) that manages production requirements through the integration of diet orders and menu selections is outdated. The system is not capable of being integrated with Meditech; it cannot be interfaced with the ADT system or purchasing.
- To date each site within the region has a unique menu. Management is in the process of reviewing the feasibility of regional menu standards to facilitate purchasing, production forecasting and to minimize waste. Regional therapeutic and texture modified standards have been completed.
- Management has identified a number of opportunities for improved efficiency and service delivery such as sanitation equipment and layout improvements at WMRH, Meditech purchasing at WMRH, new tender for disposables and chemicals, nutrition screening program and expansion of preventative clinical services, evaluation of floor stock and nourishment standards. These opportunities should be investigated in relation to opportunities to move away from conventional production and further consolidation of meal preparation activities.

6.8.1.4 Productivity & Staffing

The performance indicator for Food Services is "net cost per inpatient and resident day." Reported "meal day" statistics were used first to separate inpatient costs from outpatient costs. The remaining inpatient costs were divided by the number of inpatient and resident days to calculate the productivity indicator. The department's performance is presented in the following exhibit for all WHCC sites combined.

Exhibit 6.98
Comparison of Food Services Costs

Food Services		Net Cost / inpatient and resident day
WHCC	2002/03	$29.18
	2003/04	$29.70
Peer Range 2002/03	Best Quartile	$27.24
	Median	$29.91
	Worst Quartile	$35.24
	Number of Peers	18

The Food services performance indicator shows that WHCC performance is slightly better than the median of the peer comparators. There appeared to be wide variation among the WHCC sites in cost per patient day based on the data provided. Site results ranged from $17.98 to $39.56 per inpatient day in 2003/04. One way to improve overall cost performance for WHCC would be to focus on the higher cost sites. The following exhibit provides cost per patient day by site based on the data provided. It should be noted that the particularly wide variation may be partly due to accounting / data.

Exhibit 6.99
WHCC Food Service cost per patient day by site

	2002/03	2003/04
Food Services - WMRH	37.09	36.87
Food Services – Bonne Bay	22.12	38.15
Food Services – Calder	21.60	21.24
Food Services – STR	16.71	17.98
Food Services – LeGrow	16.43	18.02
Food Services – Rufus	42.94	36.63
Food Services – BSG	42.00	39.56
Food Services - Interfaith	24.44	25.97
WHCC Combined	29.18	29.70

Transportation challenges between the Health Centres and the Hospitals within the region may preclude consolidation of all regional food services activities at any single location. Such an option should, however, be investigated. Consolidation of activity for BSG, STRH and the Corner Brook operations at a minimum should be feasible. There are opportunities to further improve efficiencies and overall service delivery as follows:

- Implementation of a new food services system that will integrate with Meditech modules (ADT and purchasing);
- Continued implementation of regional menu standards;
- Further consolidation of meal preparation activities to achieve greater economies of scale;
- Role review of Clinical Dieticians and possible introduction of Dietary technicians for menu entry;
- Review the business case associated with modernizing kitchen facilities to more efficient current standards, such as a cook-chill operations;
- Investigation of retail food services options including outsourcing and regional standards.

Recommendations:

It is recommended that:

(150) The Regional Director, Nutrition services should establish a net operating cost performance target equivalent to $27.24 net cost per inpatient & resident day[75].

(151) The Regional Director, Nutrition services should investigate the business case and feasibility of migrating away from conventional production either through capital investment or outsourcing arrangements including retail operations.

6.8.2 *Materials Management*

6.8.2.1 Departmental Description

Materials Management encompasses purchasing, stores, sterile processing, print shop, mailroom and portering, transportation services and vehicle management. The following table presents the FTE counts for Materials Management.

Exhibit 6.100
WHCC Materials Management FTEs

	2002/03	2003/04
MM – General	2.48	2.41
MM – Stores	27.50	28.29
MM – Sterile processing	32.27	31.31
MM – Purchasing	4.09	4.22
MM – Total	66.34	66.23

6.8.2.2 Organization Design

The VP Corporate Services holds ultimate responsibility for materials management. A Manager, Institutional Supplies and a Manager of SPD services report through a Regional Director, Materials Management. Purchasing staff also report directly to the Regional Director (with the exception of a single buyer at STR who reports through the Manager, Institutional Supplies).

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[75] Measured in 2003/04 dollars.

6.8.2.3 Operations Review

The following observations and findings are made:

- WHCC purchases a portion of its Pharmacy, Laboratory and medical/surgical supplies through the Province Wide Group Purchasing (PWGP) of the Newfoundland and Labrador Health Boards Association.
- For items where appropriate standards and specifications are met, WHCC also uses provincial government contracts available through the Central Purchasing Authority.
- Management has identified the need to reduce inventory levels across the region, but particularly in the Health Centres.
- A majority of purchasing activity has been consolidated at the WMRH site.
- Meditech is fully implemented at all locations allowing users to requisition on-line from all locations within the region.
- Management has introduced a vendor evaluation protocol to review service levels and performance.
- Management is considering opportunities to contract out transportation requirements.
- Sterile processing occurs in three locations: WMRH, STR and DCL. A fourth sterilizing function at Bonne Bay Hospital was recently discontinued. A review of the sterilization requirements for each location should be undertaken with the goal of consolidating activity in one location and serving the region from one Sterile Processing operation. Sterilization requirements for BBH, White Bay and the Northern Peninsula are presently processed at WMRH.

6.8.2.4 Productivity and Staffing

The performance indicator for Materials Management is "net cost as a percentage of direct care cost." The department's performance is presented in the following exhibit.

Exhibit 6.101
Materials Management Productivity Comparison

Materials Management		% of Direct Care Costs
WHCC	2000/01	3.97%
	2001/02	3.76%
	2002/03	3.70%
	2003/04	3.65%
Peer Range 2002/03	Best Quartile	2.85%
	Median	3.22%
	Worst Quartile	3.70%
	Number of Peers	9

Although productivity performance of Materials Management has been improving in 2003/04, it remains close to the worst quartile performance of the peer organizations. While the transportation challenges of the Western Region are unique in relation to many of the peers, there are significant opportunities to further improve efficiencies and overall service delivery as follows:

- Increasing standardization of medical surgical supplies as suggested by management;
- Reducing the number of non-inventory specialty items;
- Comprehensive review of stores items with a goal of eliminating low volume seldom used inventory;
- Aggressively integrate inventories, reduce inventory levels and improve inventory turnover targeting an initial inventory turnover target of 18 per year (current rate reported as 12-15);
- Complete the consolidation of purchasing activity;
- Complete the implementation of Electronic Data Interchange (EDI) such that purchase orders and invoices can be transferred electronically between the hospital and vendors;
- Review potential consolidation of separate management functions of equipment procurement (regional Director Biomed / Equipment) and purchasing;
- Consolidating Sterile processing to a single location.

These improvements should allow the functional centre to move toward best quartile performance of the peer hospitals.

Recommendations:

It is recommended that:

(152) The Regional Director, Materials Management should establish a net operating cost performance target equivalent to 3.03% of total direct care net operating costs.

(153) The Regional Director, Materials Management should review the sterilization requirements for each location with the goal of consolidating activity to serve the region from one Sterile Processing operation.

6.8.3 Environmental Services

6.8.3.1 Departmental Description

WHCC environmental services includes the areas of Housekeeping, Laundry & Linen, Security and waste management. Security services have been contracted out at both the STR and WMR sites while utility staff, largely in housekeeping, take on security responsibilities at the other sites. The major institutional laundry facility is located at the WMRH. Personal patient/resident laundry is primarily a site specific service for long term care residents. The resident laundry services at the O'Connell Centre in Corner Brook, however, also serve long term care residents at the LeGrow Health Centre in Port aux Basques as well as the residents of the 5th and 6th floors of WMRH. Institutional and resident laundry is combined in Port Saunders, Bonne Bay and Burgeo.

The following table presents the FTE counts for Environmental Services. No separate statistics for waste management or security are provided.

Exhibit 6.102
WHCC Environmental Services - Housekeeping FTEs

	2002/03	2003/04
WMRH	73.46	72.52
Bonne Bay	9.40	8.81
Calder	8.84	8.33
STR	13.76	16.13
LeGrow	8.39	8.21
Rufus	9.34	9.60
BSG	17.10	17.02
Interfaith	32.61	31.63
Total	172.90	172.26

Exhibit 6.103
WHCC Environmental Services - Laundry FTEs

	2002/03	2003/04
WMRH	30.92	28.42
Bonne Bay	1.82	1.29
Calder	1.40	1.23
STR	0.00	0.00
LeGrow	0.00	0.00
Rufus	1.93	1.40
BSG	4.08	4.48
Interfaith	8.75	8.52
Total	48.90	45.33

6.8.3.2 Organization Design

Environmental Services are the responsibility of a Regional Director reporting to the VP corporate services and Chief Financial Officer. There are geographically located managers throughout the service reporting directly to the regional manager and a single Assistant Director located at the WMRH. The position of Regional Director, Laundry services was recently eliminated.

6.8.3.3 Operations Review

The following observations and findings are made:

- Management reports that following the 'action plan' in 2001, the operating budget for environmental services was reduced by approximately $1.1 million or 10%. This is evident in the productivity screening where environmental services net cost as a percentage of direct care cost has been reduced by approximately 2% over the past 4 years.
- Management recognizes that laundry operations are an area where economies of scale are achievable. Some progress has been made to consolidate laundry operations. Further consolidation raises concerns regarding reliability, cost of transportation, and the cost of maintaining contingency inventory and any potential required increases in inventory.
- Management has identified the need to perform a comprehensive waste audit with the potential to reduce the quantities of biomedical and confidential waste and to comply with a provincial directive to reduce all waste by 50% by 2010.
- The department has noted that there are several unmet capital equipment needs contributing to inefficiencies; acquiring

environmental capital equipment is problematic when it is competing with medical equipment.

- Workload and production assignments for housekeeping staff are based on guidelines from the Canadian Council of Ministries of Environment (CCME).

6.8.3.4 *Productivity and Staffing*

The performance indicator for Environmental Services is "net cost as a percentage of direct care cost." The department's performance is presented in the following exhibit.

Exhibit 6.104
Housekeeping Productivity Comparison

Housekeeping		% of Direct Care Costs
WHCC	2000/01	9.85%
	2001/02	8.83%
	2002/03	7.82%
	2003/04	7.80%
Peer Range 2002/03	Best Quartile	3.57%
	Median	5.18%
	Worst Quartile	5.78%
	Number of Peers	9

As many of the security and housekeeping operations of WHCC are combined and not separable for reporting purposes, the two areas were combined for comparative purposes as follows:

Exhibit 6.105
Housekeeping and Security Productivity Comparison

Housekeeping & Security combined		% of Direct Care Costs
WHCC	2000/01	10.21%
	2001/02	9.21%
	2002/03	8.24%
	2003/04	8.22%
Peer Range 2002/03	Best Quartile	4.57%
	Median	5.45%
	Worst Quartile	6.42%
	Number of Peers	9

Using these measures, the housekeeping performance indicator identifies a level of performance well past the worst quartile performance in the productivity screening.

We have also prepared the performance indicator of " net cost per square meter". Using a total for WHCC of 86,624 Square Meters that excludes penthouses and boiler rooms, the housekeeping departments' performance is presented in the following exhibit.

Exhibit 6.106
Housekeeping Productivity Comparison based on area

Housekeeping		Net Cost per Square Meter
WHCC	2000/01	$73.42
	2001/02	$72.67
	2002/03	$73.20
	2003/04	$76.15
Peer Range 2002/03	Best Quartile	$46.32
	Median	$49.45
	Worst Quartile	$59.22
	Number of Peers	9

Using this indicator, housekeeping performance remains well past the worst quartile performance. An area of 88,432 square meters was used for a similar analysis on plant security. The results are presented in the following exhibit.

Exhibit 6.107
Plant Security Productivity Comparison based on area

Plant Security		Net Cost per Square Meter
WHCC	2000/01	$2.59
	2001/02	$3.15
	2002/03	$3.63
	2003/04	$4.16
Peer Range 2002/03	Best Quartile	$2.91
	Median	$3.85
	Worst Quartile	$4.34
	Number of Peers	9

Despite the fact that a number of the housekeeping and security functions are combined, on its own, the security productivity comparison identifies a level of performance between the median and worst quartile in net cost per square meter.

There are opportunities to improve efficiencies and overall service delivery as follows:

- Further consolidation of laundry services;
- Reducing quantities of bio-medical and confidential waste;
- Aggressively review workload and production assignments for housekeeping staff using comparisons and benchmarking with peer health care organizations from across Canada.

A minimum performance target of the median peer group performance should be established by the Regional Director, Environmental Services. Given the performance of the department, however, achieving such levels will require a concerted effort and benchmarking investigation about how peer facilities are able to achieve their performance levels. As a more realistic shorter-term goal, a 5% reduction in net housekeeping costs should be targeted and achieved.

Recommendations:

It is recommended that:

(154) The Regional Director, Environmental Services should establish a cost reduction target equivalent to 5% of current departmental net operating costs.

(155) The Regional Director, Environmental Services investigate the business case and feasibility of further consolidating laundry and linen services.

6.8.4 *Facility Services*

6.8.4.1 Department Description

WHCC Facility Services includes the areas of Plant Operations, Maintenance, Grounds, capital projects, Biomedical engineering and Equipment procurement. The following table presents the FTE counts for Facility Services.

Exhibit 6.108
WHCC Facilities Services – Plant Operations FTEs

	2002/03	**2003/04**
WMRH	40.23	38.44
Bonne Bay	1.34	2.05
Calder	1.01	1.25
STR	15.01	12.31
LeGrow	8.52	7.91
Rufus	1.02	1.02
BSG	3.55	3.45
Interfaith	7.21	4.32
Total	77.90	70.75

6.8.4.2 Organization Design

Within facilities services there are two Regional Directors reporting to the VP Corporate Services and Chief Financial Officer: Regional Director Biomed / Equipment and Regional Director Facilities. There is a single manager in the department responsible for the WMRH site with a dual reporting relationship to both Regional Directors. The Vice President Corporate Services and Chief Financial Officer should review of the responsibilities of these regional directors with an aim to consolidate these positions. The portfolio of the Regional Director, Environmental Services is addressed separately. These three Regional Directors represent the three services provided under the Department of Facilities.

6.8.4.3 Facilities, Equipment and Supplies

Plant equipment is relatively new and up-to-date. New boilers as well as cold air chillers have been recently installed at the WMRH site. Much of the new equipment has been installed as a result of the Energy Performance Contract (EPC). STRH is a new facility.

6.8.4.4 Operations Review

The following observations and findings are made:

- A computerized facilities Management System monitors indoor air quality conditions at the WMRH as well as the O'Connell Centre. Plans are in place to expand the system throughout the region.
- A maintenance management system is in place to manage preventative and predictive maintenance, track unscheduled maintenance, completed and outstanding work orders as well as equipment histories.
- Management has attempted to standardize service and response across the entire region by creating regional policies for all sites in the Western Region.

6.8.4.5 Productivity and Staffing

The performance indicator for Facility Services is "net cost as a percentage of direct care cost." The department's performance is presented in the following exhibit.

Exhibit 6.109
Plant Operations & Maintenance Productivity Comparison

Plant Operations & Maintenance		% of Direct Care Costs
WHCC	2000/01	8.93%
	2001/02	9.28%
	2002/03	8.84%
	2003/04	9.59%
Peer Range 2002/03	Best Quartile	5.50%
	Median	5.89%
	Worst Quartile	7.32%
	Number of Peers	9

We have also prepared a performance indicator for Facility Services of "net cost per square meter". We have used 88,432 square meters. The department's performance on this indicator is presented in the following exhibit.

Exhibit 6.110
Plant Operations & Maintenance Productivity Comparison based on area

Plant Operations & Maintenance		Net Cost per Square Meter
WHCC	2000/01	$65.41
	2001/02	$74.95
	2002/03	$81.19
	2003/04	$90.78
Peer Range 2002/03	Best Quartile	$57.27
	Median	$67.42
	Worst Quartile	$73.72
	Number of Peers	9

On both indicators, the Plant Operations performance screening identifies a level of performance well past the worst quartile performance.

Some the difference in performance may be a function of differences in reporting. The WHCC reporting includes expenses associated with capital projects that would typically be reported by peer facilities under a planning functional centre. In addition, the department provides facility services to Community Health Western through shared service agreements and also maintains several long-term care cottages not typical of peer facilities. Despite these differences, there are opportunities to improve efficiencies and overall service delivery.

The department has implemented a high level of automation intended to improve efficiencies and service levels. There have been some implementation challenges with the new plant causing some short-term increases in operating costs. The automation and the major new equipment, however, should allow the department to operate at high levels of efficiency. These levels have not been achieved to date. Management should aggressively review staff workload and production assignments using comparisons and benchmarking with health care peer organizations. Management should also be diligent in working through implementation and installation challenges to fully realize the savings intended from the EPC.

There is a high degree of performance variability by site that may also assist with the investigation into methods to improve performance. This should also help identify particularly high cost areas. The department should initiate intra-organizational benchmarking of performance and processes. This information is presented below.

Exhibit 6. 111
Plant Operations & Maintenance
Intra-Organizational Productivity Comparisons

Plant Operations & Maintenance		% of Direct Care Costs
WHCC 2003/04	Bonne Bay	14.34%
	LeGrow	12.62%
	Calder	12.27%
	Rufus Guinchard	11.39%
	WMRH	11.08%
	STRH	9.45%
	Bay St. George	5.51%
	Interfaith/O'Connell	3.34%
Peer Range 2002/03	Best Quartile	5.50%
	Median	5.89%
	Worst Quartile	7.32%
	Number of Peers	9

Despite the potential differences in reporting by comparators, a minimum performance target of the median peer group performance should be established by the Regional Director, Facilities Services as a long-term goal. A full review of staff workload, production assignments and processes using comparisons and benchmarking with health care peer organizations will likely be a relatively long process to complete. However, a short term goal of a 5% reduction in plant operations should be targeted.

Recommendations:

It is recommended that:

(156) The Regional Director, Facilities Services should establish a cost reduction target equivalent to 5% of current departmental net operating costs.

(157) The Regional Director, Facilities Services should initiate internal and external benchmarking of operational processes to identify approaches to further reduce the cost of plant operations and maintenance in the region.

6.9 Administrative Services

6.9.1 Financial Services

6.9.1.1 Departmental Description

Financial services for WHCC encompasses general accounting, accounts receivable, accounts payable, budgeting as well ass payroll. The following table presents the FTE counts for Financial services.

Exhibit 6.112
WHCC Financial Services FTEs

Financial Services	2002/03	2003/04
WMRH	18.67	19.89
Calder	1.19	1.42
STR	3.34	2.91
LeGrow	2.14	2.14
BSG	2.19	2.69
Interfaith	0.95	1.01
Total	28.48	30.06

6.9.1.2 Organization Structure

Financial services fall under the authority of the Regional Director Financial Services / Budgeting reporting to the VP Corporate Services and Chief Financial Officer. The department includes a Director of Budgeting and special projects and a Director of Accounting. The responsibilities of the Director of Accounting include general ledger, accounts payable, accounts receivable for which there is a single manager as well as payroll where there is also a manager.

As a result, there are three management levels between the Unit Producing staff and the CFO (Manager, Director, Regional Director). Although there are some financial staff located on the various campuses of the WHCC, the majority of the staff are physically located at WMRH. Consolidating all financial activity at a single location within WHCC would eliminate the need for one of the management levels and facilitate greater efficiency in operations. Provided a mechanism to address staff payroll inquiries and a method for patients to settle various accounts are established, there is no reason for finance staff to be located at more than one location.

6.9.1.3 *Productivity and Staffing*

The performance indicator for Finance is "net cost as a percentage of direct care cost." The department's performance is presented in the following exhibit.

Exhibit 6.113
Financial Services Productivity Comparison

Financial Services		% of Direct Care Costs
WHCC	2000/01	2.02%
	2001/02	1.71%
	2002/03	1.58%
	2003/04	1.85%
Peer Range 2002/03	Best Quartile	1.80%
	Median	2.11%
	Worst Quartile	2.98%
	Number of Peers	9

The performance of financial services is close to the best quartile performance of the peer organizations (it was better than best quartile in both 2001/02 and 2002/03). Based on our on-site interviews, observations and analyses, there may, however, be opportunities to further improve efficiency and overall service delivery by consolidating activity at a single location and eliminating a level of management.

Recommendation:

It is recommended that:

(158) **The VP Corporate Services and Chief Financial Officer should consolidate Financial Services at a single location.**

6.9.2 *Registration and Clinical Records*

6.9.2.1 *Departmental Description*

The department includes Health records, switchboard, OR & procedure scheduling at the STRH site, and Admitting/Registration including appointment booking. Patient appointment booking is, however, decentralized at the WMRH site. Health records includes coding, transcription, chart completion, chart processing (retrieval, distribution, storage and maintenance), release of clinical information and data analysis and reporting. The following table presents the FTE counts for Health Records:

Exhibit 6.114
WHCC Health Records FTEs

Health Records	2002/03	2003/04
WMRH	22.45	23.10
Bonne Bay	2.72	2.85
Calder	1.19	1.15
STR	6.06	6.29
LeGrow	5.40	5.17
Rufus	3.04	3.08
Total	40.86	41.63

Exhibit 6.115
WHCC Patient Registration FTEs

	2002/03	2003/04
WMRH	7.57	7.31
STR	12.97	12.12
Total	20.54	19.43

Registration at the STR site includes OR & Procedure room scheduling as well as clinic appointment bookings. These functions are decentralized at the WMRH site.

The FTE increase in Health Records at WMRH was due to coding and abstracting of procedure room cases that were previously not captured.

6.9.2.2 Organization Design

The Regional Director for Health Records/Registration reports to the Corporate Director, Clinical Decision Support. WMRH has a site-specific manager health records/registration who reports to the Regional Director.

6.9.2.3 *Facilities, Equipment and Supplies*

Records Storage is a significant problem for the department. A site visit of the health records storage and work areas was conducted and confirmed that storage space at the WMRH site is exhausted. Charts are filed beyond capacity on appropriately designed shelves while stand-alone filing cabinets and temporary shelves fill any available space. Facilities staff are investigating the load burden currently being placed on the facility floor. The situation has created a hazardous work environment for staff and leads to inefficiencies in chart retrieval. Off-site storage has not been considered due to concerns about the sensitivity of the information. Management has recently identified space in the old boiler plant area for dead storage of files.

Facilities for the coding and abstracting of patient charts are also inadequate. These functions are performed in the middle of the main work/storage area among chart storage. While adjacency of functions is important, the current arrangement does not allow any opportunity for concentration or freedom from distraction.

The Dictation system at the WMRH site is antiquated: it is no longer supported by the vendor and has no available replacement parts except those salvaged from the system that was replaced by the Central Health Region. The system was down during our site visit and being repaired after-hours. The system needs to be replaced.

6.9.2.4 *Operations Review*

As has been discussed previously in other sections of this report, chart completion, although often problematic in hospitals, is a particular challenge for WHCC. Our site visit confirmed excessive volumes of incomplete charts; this situation creates inefficiencies in chart retrieval, affects coding and abstracting and ultimately results in poor patient care as charts, once retrieved to support care of a patient in the hospital, are incomplete.

6.9.2.5 *Productivity and Staffing*

The performance indicator for Health Records is "net cost as a percentage of direct care cost." The department's performance is presented in the following exhibit.

Exhibit 6.116
Health Records Productivity Comparison

Health Records		% of Direct Care Costs
WHCC	2000/01	2.11%
	2001/02	2.15%
	2002/03	1.96%
	2003/04	2.02%
Peer Range 2002/03	Best Quartile	2.15%
	Median	2.50%
	Worst Quartile	2.89%
	Number of Peers	9

Health Records performance is better than the best quartile performance of the peer organizations. However, based on our on-site interviews, observations and analyses, there may still be opportunities to further improve efficiencies and overall service delivery as follows:

- The Manager of Registration and Clinical Records should develop a business plan for alternative records storage options.
- The Corporate Director, Clinical Decision Support should implement a new Dictation Transcription system.
- The RMAC and The VP Medical Services should implement a system to enforce timely chart completion.

6.10 *Information Technology*

6.10.1.1 Current Characteristics

The Information Technology Department of the WHCC is managed by a Regional Director who reports to the Vice President of Corporate Services/Chief Financial Officer. The department comprises of 8 FTEs that report to the Regional Director. The IT function for WHCC is centralized to the Western Memorial Regional Hospital site. Other WHCC sites are serviced through online software and technical expertise originating from the Western Memorial site. Periodic site visits are conducted by IT staff for technical support and the hospital courier system is used to transport hardware if necessary.

The WHCC along with the rest of the province have chosen Meditech software as their primary health information system. All sites in the region have the ADT, medical records, laboratory and material management modules of the system. All sites with pharmacies also have the pharmacy module.

WMRH, as the regional referral centre, also has order entry, patient care enquiry, diagnostic imaging and community wide scheduling modules; plans are in place to extend these modules to all sites in the region

There is no computerized physician order entry (CPOE) as of yet, this will require further development of the existing order-entry capability, clinician education and a change management strategy.

The IT department has focused its efforts to date in providing technical solutions in the area of Electronic Health Records and developing a communications infrastructure to help support connectivity of the geographically dispersed sites of the WHCC. Currently, all sites (excluding medical clinics) are connected to the WHCC information network, albeit at varying degrees of speed.

6.10.1.2 Issues in Management and/or Operations

The management structure seems to work well for the Information Technology Department. The function is quite centralized and leadership is provided through the Regional Director.

The 8 FTE primarily serve in a technical capacity, providing troubleshooting (help desk) and network support services to the corporation. There are several implementation projects slated for at WHCC that involve enhancing the corporation's Electronic Health Record. The following initiatives have been identified through the interview process:

- Nursing / Clinical documentation Module
- OR Management Module
- PACS
- PCI, Order Entry & DI (sites other than Western Memorial)
- Departmental Transcription Module
- Community-wide Scheduling Module

Most of these modules are already available as part of the Meditech suite of software. It is important to approach implementation of these modules within a project management framework that includes involvement and representation from user groups, including clinicians.

It was reported that the main barrier to initiation and implementation is the required human resources to undertake these projects.

There may be opportunities for redesign of roles and/or increased training of some of the individuals within the department in order to provide the base for a more effective project implementation team. For example, the interview process identified a Systems Manager, reporting directly to the Regional Director, who has a Meditech skill-set, but whose role is largely that of an office manager for the group. This individual may be able to act as a project manager for such projects while offloading office manager duties to human resources and/or other shared support staff. Re-designing roles of the current staffing complement to accommodate these projects should be the immediate-term step.

In order to continue both the development of the communication/network infrastructure and pursue EHR initiatives, there is a need to invest in more IT human resources to support future planned initiatives. Once the region has established a positive fiscal position, it should increase its ongoing spending and investments in information systems and technologies.

There is currently no up to date Information Technology strategic plan in place. The organization is still working from a plan that was written in 1996. The 1996 plan set out IT objectives for communications and network infrastructure and integration of systems that have largely been met. However, there are objectives such as the implementation of a decision support system on an enterprise level that the plan set out, but have not been met. The health care environment and IT requirements have changed since 1996 and new strategic plan is required. We have learned that there is an IT Steering Committee that has corporate and physician representation, charged with developing a strategy to commence various IT initiatives. This committee should develop a well-documented strategic plan that addresses the needs of the region. It is imperative that this plan be backed by both the corporate and clinician groups in the organization.

Based on our review, we feel that any strategic plan should include the following information and communication technology initiatives that would significantly assist the corporation in the shorter term:

- **Video-Conferencing:** Enhance the video-conferencing capability for administrative and/or therapeutic applications within the Corporation. Geography has been identified through the review process as a barrier to achieving efficiencies. Further investment in connecting all the sites via video-conferencing (where bandwidth is available) and using existing video-conferencing technology should be options to be considered in connecting the following groups of people:

- Regional Directors with Direct Reports located in sites different from their own. This can be done to maintain regular lines of communication and cut down on travel time which is costly and affects productivity.
- Therapists/Clinicians in Corner Brook & Stephenville with patients in other sites of the Corporation to provide basic consultative sessions, where it may not be necessary to provide hands on care (ex. Social Work, Psychology, etc.).
- Clinicians with their colleagues in other sites in order to provide practice support and maintain collegial linkages.

- **Information Management/Decision Support Function:** Enhance the decision support function in order to provide more timely and useful information for managers. We learned that there is a Meditech decision support system called ESS (Executive Support System). The ESS was described as being used occasionally by the Health Records department and Regional Utilization Coordinator to obtain Admission/Discharge statistics, and periodically by Pharmacy to view drug costs across the region. The ESS has the potential to be a valuable tool for managers as it has the ability to gather and assemble information from the following applications: Registration, Case Mix Management, Order Entry, Laboratory, Billing/Accounts Receivable, General Ledger, Accounts Payable, Payroll/Personnel, Staffing and Scheduling, Pharmacy and Physician's Practice Management. We feel that this kind of module should be deployed more widely across the organization to managers in order give them information to manage more effectively and efficiently. This will also assist in fostering a culture of managing with information within the organization. This is a shorter term solution, until a more robust data repository can be developed that will analyze and integrate both clinical and administrative data and provide regular reports to managers.

- **Corporate Intranet/E-mail policy:** A corporate intranet can serve as a valuable tool to communicate with employees, especially given the challenges that the corporation faces being located across a wide geography. For example, Clinical pathways and care maps published to the intranet can assist clinicians at other sites and standardize care across the corporation. There are currently two e-mail systems in place in the organization, one being an internet-based e-mail system, the other being a non-internet based, Meditech messaging system. Current e-mail policy provides internet e-mail addresses to only managers and clinical leaders. In some cases managers have both services. The corporation should adopt one e-mail system for all employees to ensure non-duplication and streamline communication.

The planned EHR initiatives discussed above are important initiatives and ones that we feel the corporation will benefit from in the longer term. These initiatives will also require future investment in IT human resources (especially with skills in health informatics) as a shift occurs in the current model of the IT department from one that is predominately help-desk/technical support based to one that is project-management based.

6.10.1.3 Performance & Staffing

Assessing the performance of information technology departments in health care organizations is difficult. In contrast to other functional centres, the performance outcome is not as clear. There are outcomes such as level of automation, information flow, EPR development, access to information and improved patient care for example, that are difficult or even not possible to determine given the lack of data to support such measurement.

Alternatively, we have examined the level of spending of operating funds on information systems for WHCC and peers by calculating the Net Costs of the Information Systems Functional Centre (excluding Medical Staff and Equipment costs) as a percent of the Total Direct Care Net Costs.

In the case of this metric, we are not associating a low number with good performance; rather it provides a measure of where WHCC stands among its peers with respect to IS spending. As illustrated in Exhibit 6.117, WHCC spending on IS has declined since 2001/02. In 2003/04, IS net costs as a percent of total direct care net costs was 0.78%, this is below the 25th percentile level of the peer hospital group. WHCC is spending significantly less on information technology than its peer hospitals.

Exhibit 6.117
Net Cost of Information Systems as a Percent of Total Direct Net Costs

Information Systems		% of Direct Care Costs
WHCC	2000/01	0.76%
	2001/02	0.98%
	2002/03	0.71%
	2003/04	0.78%
Peer Range 2002/03	Minimum	1.06%
	Best Quartile	1.56%
	Median	1.79%
	Worst Quartile	1.94%
	Maximum	2.40%
	Number of Peers	9

It is important for hospitals to maintain their investments in information systems and technology both to enable better patient care and to automate and improve business processes. Once the organization has achieved an operating surplus and initiated repayment of its bank debt, it should increase its spending on Information and Communication Technology and Systems to more completely address clinical, operational and management information and communication needs of the organization.

Recommendations:

It is recommended that:

(159) **The Director of Information Technology should review the current IT staffing complement for potential to redesign roles and/or processes to address EPR implementation projects.**

(160) **The Director of Information Technology should develop an IT strategic plan that specifically addresses the short-term information and communication needs of the organization.**

(161) **The CEO should use available surplus funds to increase investments in acquiring information technologies and supporting and expanding information systems in the region.**

6.11 Summary Of Operating Efficiency Opportunities

Savings through improvements in operating efficiency are estimated at $5,493,000. These savings are summarized in Exhibit 6.118.

Exhibit 6.118
Savings Through Improvements in Operating Efficiency

Rec #	Department or Area	Action	Productivity		FTE Reduction	Cost Savings
			Current	Proposed		
77	WHCC Nursing	Develop and implement guidelines for the use of overtime.				$ (39,000)
79	WHCC Nursing & Diag Services	Reduce Nursing call back expenditure by 20% from spending in 2003/04.				$ (23,000)
97	WMRH Nursing - Medical Inpatient	Achieve productivity of 5.52 worked hours per patient day.	5.58	5.52	(1.08)	$ (44,000)
106	WMRH Day Surgery	Achieve productivity of 1.86 worked hours per visit.	3.24	1.86	(2.46)	$ (137,000)
110	WMRH Operating Rooms	Achieve productivity of 5.98 worked hours per case.	9.56	5.98	(12.58)	$ (703,000)
111	WMRH PARR	Achieve productivity of 1.84 worked hours per case.	3.45	1.84	(5.26)	$ (294,000)
114	WMRH Surgical Inpatient	Achieve productivity of 5.78 worked hours per patient day.	6.53	5.78	(9.39)	$ (525,000)
115	WMRH ICU	Achieve productivity of 17.41 worked hours per patient day	18.75	17.41	(2.71)	$ (152,000)
116	WMRH Birthing	Achieve productivity of 9.04 worked hours per patient day.	11.69	9.04	(7.02)	$ (393,000)
117	WMRH Pediatrics	Achieve recommended minimum staffing levels (17.3 FTE).	11.70	7.94	(6.24)	$ (349,000)
124	Home Care Clinic	Discontinue the Home Care (Dressing) Clinic at the WMRH.			(1.00)	$ (80,000)
126	STRH Medical Inpatient Services	Achieve productivity of 5.23 worked hours per patient day.	6.59	5.23	(5.30)	$ (297,000)
127	STRH Surgical Services	Achieve productivity of 5.43 worked hours per patient day.	6.69	5.43	(6.25)	$ (350,000)
128	STRH ICU	Achieve recommended minimum staffing levels (5.9 FTE).	22.92	15.56	(0.38)	$ (21,000)
129	STRH Combined OR/PARR	Achieve recommended minimum staffing levels (8.02 FTE).	18.90	6.89	(1.42)	$ (80,000)
135	LTC - Rehabilitation	Achieve a productivity of 6.14 worked hours per patient day.	7.65	6.14	(2.29)	$ (128,000)
141	WHCC Pharmacy	Achieve a target for WHCC drug costs at 2.33% of Net Operating Costs.	2.56%	2.33%		$ (190,000)
142	WMRH Physiotherapy	Achieve productivity of 0.80 hours per attendance.	0.94	0.80	(1.36)	$ (71,000)

	Department		Productivity		FTE	Cost Savings
Rec #	**or Area**	**Action**	**Current**	**Proposed**	**Reduction**	
143	STRH Physiotherapy	Achieve productivity of 1.05 hours per attendance.	1.24	1.05	(0.75)	$ (38,000)
144	Bonne Bay & LeGrow PT	Achieve productivity of 0.76 hours per attendance.	0.86	0.76	(0.19)	$ (9,000)
145	WMRH OT	Achieve productivity of 1.14 hours per attendance for OT services.	1.91	0.87	(1.75)	$ (111,000)
146	LeGrow OT	Achieve productivity of 1.14 hours per attendance for OT services	3.46	1.14	(1.07)	$ (68,000)
150	Nutrition Services	Achieve net operating cost of $27.24 per inpatient and resident day.	$29.70	$27.24		$ (157,000)
152	Materials Management	Achieve net operating cost equal to 3.03% of total direct care net costs.	3.65%	3.03%		$ (503,000)
154	Environmental Services	Achieve 5.0% reduction of current departmental net operating costs.	8.24%	-5.00%		$ (330,000)
156	Facility Services	Achieve 5% reduction of current departmental net operating costs.	9.50%	-5.00%		$ (401,000)
					(68.47)	**$ (5,493,000)**

7.0 Opportunities for Service Rationalization and Realignment

This section of the report focuses on an analysis of clinical services offered in the various modalities of care offered by the Corporation and opportunities for service rationalization that will allow the Corporation to best meet the needs of the population within the resources available to it. Our approach to service rationalization is designed to create a viable model for the future that optimizes access, quality and sustainability.

7.1 Primary Care Clinics

WHCC has applied the Department's guidelines for allocation of services to develop a plan for restructuring clinic services in the region.

The Corporation currently operates 22 primary care clinics throughout the Western Region. As recommended in the Government's Strategic Health Plan- "Healthier Together" the Corporation has reconsidered the distribution of clinics. It has applied the guidelines for allocation of services to develop a plan for restructuring clinic services in the region[76]. The Department's guidelines for the allocation of primary care services address issues such as population mass, travel distance and natural patient flow. Based on these guidelines the Board's preferred plan would consolidate its clinic activities into 13 sites:

Stephenville Crossing	Lourdes
Deer Lake	Woody Point
Jackson's Arm or Hampden	Jeffrey's
Clinics on Southwest Coast	Cow's Head

WHCC should consolidate clinics to improve clinical services and reduce operating costs.

The consolidation of clinic services would allow for more clinical resources and competence at the continuing sites, and thus, ultimately provide for more effective primary care for the people of the Western Region.

Consolidation of clinics will save $600,000 per year.

The Board estimates that this plan for the consolidation of clinics would also provide for a savings of approximately $600,000 per year[77].

We agree with and support the Board's plan to consolidate clinic services. The Board should proceed with implementing its plan and realize both improvements in clinical services and operating cost savings.

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[76] Western Health Care Corporation, "Reply to Department of Health and Community Services Request of December 29, 2003", February 9, 2004.

[77] Additionally, one physician position could be eliminated that would reduce the cost of medical services to the department by approximately $110,000.

The Board should reconsider its site selection in White Bay.

However, before implementation, we feel that the Board should reconsider its site selection in White Bay. In reviewing the supporting material for the White Bay decision, it is not apparent that the natural flow of patients was fully considered. There are three clinics in the White Bay area including those in Jackson's Arm, Sops Arm and Hampden. The current proposal would retain the clinic in Jackson's Arm and close the other two. Jackson's Arm is the furthest distance north and patients may be more inclined to travel south toward Deer Lake or Corner Brook than go to Jackson's Arm if they need to see a clinician. If the patient needed immediate consultation with a specialist he would be sent south after he had traveled north to visit the primary care physician. The Board should revisit its plan for the location of the continuing clinic in White Bay and ensure that adequate consideration has been given to the natural flow of patients.

Recommendations:

It is recommended that:

(162) The VP, Rural should revisit its plan for the location of the continuing clinic in White Bay and ensure that adequate consideration has been given to the natural flow of patients.

(163) The Board should implement its plan to consolidate clinic services into 13 continuing sites in the region.

7.2 Health Centres

7.2.1 Charles L LeGrow Health Centre, Port Aux Basques

The Port Aux Basques area has an effective population of about 10,000 people. However, during tourist season there may be as many as 40,000 additional people visiting the area.

Nurse practitioners and physicians in the community share the responsibility of offering primary care services.

The Dr. Charles L. LeGrow Health Centre offers a range of services including primary care, inpatient and outpatient acute care and inpatient and outpatient Long-Term Care.

The nurse practitioners and physicians in the community share the responsibility of offering primary care services to the broader region through local clinics in Rose Blanche, Doyles and LaPoyle. There is a budgeted complement of three salaried physicians and there are four fee-for-service general practitioners and two nurse practitioners in the community at the moment.

The Health Centre has developed a relationship with Memorial University of Newfoundland to function as a training site for Family Practice Residents.

The Centre has 14 acute care beds and 2 overflow beds.

The Centre has 14 acute care beds and 2 overflow beds, telemetry capability and a two bed monitored ICU where staff are prepared to administer thrombolytic agents. The ER operates on a 24/7 basis with call back of physicians as needed.

There is 1 OR and a four stretcher recovery area.

There is 1 OR and a four stretcher recovery area. There are several minor procedure rooms including one that handles fractures. Unstable fractures are appropriately being transferred to Corner Brook. The GP Surgeon performs upper GI scopes and flexible sigmoidoscopies but does not perform colonoscopies. The outpatient area also has two rooms that accommodate chemotherapy and IV infusions, blood transfusions etc.

Staff education is a very important consideration for the nursing staff of the Centre. They make an effort to maintain competence in such things as ACLS as well as Trauma management and Chemotherapy administration.

General Laboratory (including cross matching) and Diagnostic Imaging Services are also provided on a 24/7 basis through cross-trained technicians. There is capability for general abdominal, pelvic and obstetrical ultrasound and also routine IVP. All images are sent to Corner Brook for interpretation and verbal reports are available within an acceptable time frame. It should be noted that the PACs system has not yet been implemented in the region. With such a remote distribution of facilities this is an obvious disadvantage to the provision of patient care. Similarly laboratory tests other than general routine profiles are referred out and results are generally reported within 6 hours. Sterilization of supplies is conducted in house and laundry is transferred to Corner Brook for processing.

Therapy services at the Centre include occupational therapy, physiotherapy, recreational therapy and social work. There is also a pharmacist and pharmacy clerk. Medications are available in bulk quantities although the facility has the equipment to administer single dose narcotics but does not have the space to implement the program.

Some programs in the region have been established jointly with the Community Services Board. As a result of the work of ID Dysphagia Management working group, the two boards have implemented a Regional Dysphagia Management Program. This program is offered at the Centre in Port Aux Basques jointly by the Dietician from Acute Care and the Speech/Language Pathologist from Community Care.

Mental Health Services are managed through the Community Services Board.

Videoconferencing is available and its use is encouraged by the Region. This technology should be used as frequently as possible to facilitate education and training and to conduct meetings and avoid some of the regional travel. Every effort should be made increase the use of video conferencing for clinical, educational and administrative purposes.

The Long Term Care Wing has 30 beds including 26 LTC, 2 respite and 2 adult rehabilitation. Access to LTC in the region is managed trough the regional single entry system. Wandering patients are not accepted into the facility but are transferred to the LTC facility in Stephenville Crossing. There is a team of professionals who decide on eligibility for the rehabilitation beds. A resident council has been established and is very active in fundraising.

A Day Outreach Program has been developed and the 10-12 clients are transported daily by the Centre's bus to participate in the Program. The Centre also manages 11 cottages and 21 apartments for seniors where admission is granted in accordance with established criteria.

The Centre should continue to provide its current complement of primary care and long-term care services.

The range of primary care services and long term care services seem appropriate and staff appear to be committed to maintaining acceptable levels of skill to execute on their responsibilities. The Centre should continue to provide its current complement of primary care and long-term care services.

Elective deliveries should not be performed at the Dr. Charles L. LeGrow Health Centre.

Obstetrical services in Port Aux Basques are handled by general practitioners with back up from the GP Surgeon and also a GP Anesthetist when one is available. High-risk obstetrical patients are referred to Corner Brook. The Centre defines high-risk patients as those where labor commences before 34 weeks gestation, those with potentially serious co-morbid conditions and those who are primagravidas. There were 22 deliveries in 2003/04, including 3 Caesarean sections. The low volume of deliveries, the lack of local paediatric back-up, the lack of obstetrical back up and the current absence of even a GP anaesthetist makes continued provision of even low risk births questionable; it is putting both mothers and babies at risk unnecessarily[78]. One study has found that the risk of neonatal death increased as the number of deliveries in an institution decreased below 2,000 a year. In institutions with less than 100 births/year the risk doubled[79]. Elective deliveries should not be performed at the Dr. Charles L. LeGrow Health Centre.

Surgical services in Port Aux Basques are not currently available because there is no anesthetist at the Health Centre. The Anesthetist left in September 2003. There is a GP Surgeon at the moment who would continue to offer surgical services if anesthetic services were available. It is unlikely however that another Surgeon and Anesthetist could be recruited to this community once the existing Surgeon retires. When the surgical service is available, the activity is low volume, low acuity and elective in nature for the most part. There is an approved list of surgeries that includes such procedures as Tubal Ligation, Dilatation and Cauterization, Appendectomy and low risk Caesarean Section.

Surgical procedures requiring general or regional anaesthesia should not be offered at the Dr. Charles L. LeGrow Health Centre.

The ability of the Dr. Charles LeGrow Health Centre to deliver surgical services on a best-practice basis must be questioned in light of this situation. And even if there were anaesthesia available, it will be difficult and expensive to maintain staff competence in surgical techniques, to maintain surgical facilities, to maintain surgical instruments and supplies with such low volumes. And there is no back up in the event of an unexpected adverse event. Surgical procedures requiring general or regional anaesthesia should not be offered at the Dr. Charles L. LeGrow Health Centre.

If surgical services are not available in Port Aux Basques, there is even more concern about the wisdom of continuing to perform deliveries at the Centre. There will be no surgical back up in the event of an unexpected adverse event. The Centre is a substantial distance from the closest specialty centre in the event of an obstetrical emergency arising during the course of a delivery. Best practice suggests that if there is no back up from both surgery and Anesthesia, there should be no planned obstetrics, including low risk obstetrics.

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[78] "Are we regionalized enough? Early-neonatal deaths in low-risk births by the size of delivery units in Hesse, Germany 1990-1999." Heller G, Richardson DK, Schnell R, Misselwitz B, Kunzel W, Schmidt S. Int J Epidemiol. 2002 Oct; 31(5): 1069-70.

[79] "Relation between size of delivery unit and neonatal death in low risk deliveries: population based study." Dag Moster, Rolv Terje Lie, Trond Markestad. Arch Dis Child Fetal Neontal Ed 1999;80:F221-F225

Recommendations:

It is recommended that:

(164) The WHCC should discontinue elective deliveries at the Dr. Charles L. LeGrow Health Centre.

(165) The WHCC should discontinue elective surgeries requiring general or regional anaesthesia at the Dr. Charles L. LeGrow Health Centre.

7.2.2 Rufus Guinchard Health Centre, Port Saunders

The Rufus Guinchard Health Centre serves a population of approximately 3600 people but patients attend from beyond the defined boundaries. In general the Centre provides an appropriate range of services but does have some issues with availability of its physicians and in the provision of adequate support to the LTC residents.

The Centre has 7 acute care beds with an occupancy rate of 68% and 22 LTC beds with an occupancy rate of 85% (2003/04). The acute care patient profile runs the range of general medical diagnoses including myocardial infarction, stroke, and COPD. Unstable patients are transferred to Corner Brook with physician escort. Surgical emergencies are "medevac'd" by helicopter in the winter if necessary and obstetrics is referred out on a planned basis. If emergency transport is delayed due to weather conditions, patients are stabilized and transferred as quickly as possible. There are no outlying clinics serviced by the staff of this Centre.

Too many patients at Rufus Guinchard H.C. are being held for extended observation when they should be admitted.

Patients are being held at the center for observation, without being formally admitted or transferred to an inpatient bed on a nursing unit. There are some concerns about the availability of the physicians to provide ongoing assessment of the patients who are admitted for observation. In fact the staff of the Centre are uncomfortable with the fact that too many patients appear to be held for extended observation when the patient, more appropriately, should be admitted. These observation patients are often held in a trauma/treatment area where it is difficult for nurses to monitor their condition or provide care. This practice presents difficulties for the allocation of nursing resources in the center. Also, there are supplies and drugs stored in the area where these patients are sometimes held for observation. When nurses are busy on the ward, they do not have the ability to monitor these items as closely as necessary.

The Centre provides general Diagnostic Imaging and Laboratory Services with cross- trained technicians who provide 24/7 on call coverage. Radiology films are sent to Corner Brook on a daily basis with good turnaround. Laboratory tests that are sent to Corner Brook are reported within 6 hours.

There is an ambulance operated by the Corporation[80]. There are no public transportation services so inpatients including LTC residents are transported by ambulance to Corner Brook for investigations not available at the Centre.

Patients using the LTC beds are primarily level 3 and some are level 4. Patients requiring protective care are sent to Corner Brook or Stephenville. The nearest personal care home or seniors apartments are in Cow Head. There is limited home support in the area.

Patients requiring occupational therapy are referred to Corner Brook or the occupational therapist from Corner Brook may visit the LTC residents once a year. A physiotherapist visits the LTC residents for one day on a monthly basis and a 0.5 FTE physiotherapy aide who is a LPN manages the LTC requirements. There are no occupational therapy or physiotherapy services available to the acute care patients.

HCSW staff that provide public, community health nursing and mental health services are co-located within the health centre. Likewise HCSW provides social services with a focus on children and elderly.

There are currently two physicians at the Centre with a quota for one additional physician. Also, there are two nurse practitioners that book clinics regularly but do not see walk-in patients. The physicians and nurse practitioners are comfortable with the level of primary care that they are able to provide to the community. However, the physicians are concerned about the ability to access specialists in Corner Brook when needed in situations other than emergencies. This may be leaving the physicians in this remote area with insufficient backup to manage complex patients.

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[80] The only other Corporation owned ambulance service is in Corner Brook. Private ambulances support the other sites

It is difficult for only 2 physicians to provide sufficient availability to respond to the needs of this community throughout the year.

There are also concerns about the adequacy of the physician complement in the area, access to primary medical care and the manner in which the physicians are managing patient volume. It is difficult for only 2 physicians to provide sufficient availability to respond to the needs of the community throughout the year.

The VP Medical Affairs should review physician coverage and practices at Rufus Guinchard H.C.

The VP Medical Affairs should review physician coverage and practices at the Centre to determine whether the physicians are fulfilling their obligations to the community and to the region...

Otherwise the range of services offered at the Rufus Guinchard Health Centre in Port Saunders appears appropriate for the community.

Recommendations:

It is recommended that:

(166) The VP, Rural and the VP Medicine should ensure that patients are not held for observation at the Rufus Guinchard Health Centre but are either admitted to an inpatient bed or discharged.

(167) The VP Medical Affairs should ensure that the adequate medical coverage is provided for the community served by and the patients of the Rufus Guinchard Health Centre.

(168) The RMAC should review, develop guidelines and processes and improve the referral process between the more remote facilities within the Corporation and medical staff and services in Corner Brook.

7.2.3 Bonne Bay Health Centre, Norris Point

The Bonne Bay Health Centre in Norris Point serves a population of about 5,000.

There are 8 acute care beds including palliative care with an average occupancy rate of 56% (in fiscal year 2003/04). There is an ED and provide 24/7 coverage to the ED on a call back basis.

Too many patients at Bonne Bay H.C.are being held for extended observation when they should be admitted.

There is a situation here similar to that in Port Saunders with 2 observation beds in the outpatient area that are sometimes occupied by patients who perhaps should be admitted. Nursing staff is having difficulty adequately covering this area. The use of the observation area for patients who are kept for 24-48 hours should be discontinued since it is putting a strain on the ability of nurses to adequately manage these patients and also attend to the inpatient units and ER.

A private ambulance services the Centre and is used to transport patients. RNs from the Centre however often accompany the ambulance because the private paramedic is only required to stay with the patient for 3 hours. This is reported to be a significant issue for the Centre because it places a strain on nurse resources

General Laboratory and Diagnostic Imaging services are available in the Centre and are provided by cross-trained technicians. Results are available through electronic reporting and turnaround is generally acceptable.

There is a 0.8 FTE physiotherapist and 0.8 physiotherapy aide. Physiotherapy is primarily an outpatient service with a limited amount of service provided to the LTC residents (only 16% of physiotherapy workload units were provided to LTC residents in 2003/04). A pharmacist visits three times a year and in the interim the nursing staff manage the pharmacy. (There is, however, a private pharmacist operating in Norris Point.) Patients in the Centre do not have access to occupational therapy, speech language pathology or social work. A dietician is shared with Port Saunders.

There are 14 LTC beds with an average occupancy rate of 99% LTC patients who are primarily level 3.

The LTC residents have access to a bus that was bought through donations from the staff and the community and is owned by the Corporation. The bus is shared with Port Saunders in the summer.

There are 3 physicians at the Centre in addition to one physician in Cow Head and another in Woody Point. There is also a nurse practitioner for the area. There are no specialist clinic visits and no specialists on staff. The complement of physicians in this area has been very stable over the years and there are no significant issues with the medical staff. If there is an occasional issue regarding the professional practice of a physician, the matter appears to be quickly addressed in an appropriate manner.

The Centre is one of 7 sites across the province to participate in the Primary Care Reform Project that supports the evolution of a team based model with all team members working at their optimum skill level, assesses the feasibility of new compensation structures and other parameters. It is anticipated that this kind of an initiative can assist the Centre in continuing to attract well qualified professionals to the community.

In general terms the Centre provides an appropriate range of service with the exception of psycho-social support and activation for LTC residents.

Recommendation:

It is recommended that:

(169) The VP, Rural should eliminate the observation area at the Bonne Bay Health Centre and patients should be either admitted to an inpatient bed or discharged.

7.2.4 *Calder Health Centre, Burgeo*

The Calder Health Centre in Burgeo is about 2.5 hours drive from the Corner Brook. There are approximately 2500 to 3000 people in the area with 1500 in Burgeo itself and 1,000 to 1500 people from outside Burgeo in communities as remote as Ramea Island which is accessible only by boat served by the Centre. There are 2 nurse practitioner positions designated for Ramea Island although they are not fully occupied at the moment. They provide services to the region through the coastal clinics.

There are 3 acute care beds (including 1 palliative care bed) and 18 LTC beds. Two physicians have offered an excellent and stable service in this community for the last 15 years. The profile of patient admissions ranges from Myocardial Infarction to Cancer, COPD and other general medical problems. The physicians perform minor surgery requiring only local anesthetic and chemotherapy is provided to cancer patients.

It is reported that the CHC has difficult accessing hospital services in Stephenville for acutely ill patients. As a result, the centre transports acutely ill patients primarily to Corner Brook. Neurosurgical patients are sent to the Health Sciences in St. John's.

The Centre provides a general laboratory and Diagnostic Imaging Service with the support of one cross-trained technician. There is a visiting physiotherapist and the site employs 0.5 FTE physiotherapy aides. There is also a visiting dietician. The site employs 1.0 FTE recreational therapy worker, but there is only limited ADL and recreational programming at the site.

The range of services provided by this Health Centre appear appropriate for the community

7.3 Hospitals

7.3.1 Sir Thomas Roddick Hospital

The Sir Thomas Roddick Hospital opened in 2003.

The Sir Thomas Roddick Hospital opened in 2003 with a capacity for 50 beds. Forty-four beds are operational with 84% occupancy in 2003/04. The population of the immediate area is approximately 10,000 with a larger catchment area of about 19,000 people.

The community has 9 general practitioners, 7 of whom are associated with the hospital. The family practitioners are supported by a cadre of specialists including 2 obstetrician/gynecologists, 2 surgeons, 2 anesthetists, 2 internists, 2 psychiatrists, and 1 ophthalmologist. There is no paediatrician or radiologist on staff.

There are currently 44 acute care beds in operation at STRH.

There are currently 44 acute care beds in operation at STRH. The allocation of these beds is reported to be:

- Medicine/Surgery: 22
- ICU: 3
- Obstetrics/Gynaecology: 5
- Mental Health: 4
- Rehabilitation/ALC: 6
- Palliative Care: 4

All rooms are private or semi private and there are 2 negative pressure isolation rooms. There are also 4 dialysis stations supporting dialysis of patients 6 days a week.

The ED is open 24/7 and there are approximately 75 visits per day. Fifty to seventy-five percent of these visits (40-55 visits) are categorized as triage class 5 visits.

There is a respiratory therapist, an occupational therapist who visits once weekly, 2 physiotherapists and 1 physiotherapy aid as well as 2 pharmacists and a pharmacy technician, 3.5 social workers and 1 dietician.

There are neurology and Orthopaedic clinics on a weekly basis for the specialists visiting from Corner Brook and EEGs are now available as a result of the Neurologist's support.

The ORs at the hospital may be closed for extended periods at holiday seasons because nurses are not available for coverage. The OR weekly schedule is shared among the surgeons and gynecologists but one day per week the general practitioners perform minor procedures in the OR. There is a dental day once per month. It is reported that wait lists for surgery are 3-4 months but there are relatively few people on the lists. This may be attributable in part to the short day of the salaried specialist who schedule short OR lists and/or the scheduling and wait list management practices of the surgeons.

Elective deliveries should not be performed at the Sir Thomas Roddick Hospital.

There are only approximately 135 obstetrical deliveries annually at STRH. These are attended by the obstetricians and 2 of the family practitioners. High-risk obstetrical patients are referred to Corner Brook. Research and professional opinion[81] suggest that the low volume of deliveries, the lack of local paediatric back-up and the relatively close proximity of a regional centre, make continued provision of even low risk births questionable; it is putting both mothers and babies at risk unnecessarily. For example, one study found that for low-risk births, early-neonatal death is substantially higher in very small delivery units (<500 births/year) than in larger delivery units (>1500 births/year) [82]. Another study found that the risk of neonatal death increased as the number of deliveries in an institution decreased below 2,000 a year. In institutions with less than 100 births/year the risk of neonatal death doubled[83]. Elective deliveries should not be performed at the Sir Thomas Roddick Hospital.

Surgical procedures requiring general or regional anaesthesia should not be performed at the Sir Thomas Roddick Hospital.

The surgical service in Stephenville is a low volume, low acuity service and is primarily elective in nature. In 2003/04, there were only 720 surgical cases in the STRH ORs. There are two surgeons providing a range of surgical services requiring general and regional anesthetic. There are two anaesthetists supporting the surgical service (along with obstetrics and other anaesthesia activity.) It is difficult and expensive to maintain staff competence in surgical techniques, to maintain surgical facilities, to maintain surgical instruments and supplies with low volumes. And there is limited back up in Stephenville in the event of an unexpected adverse event.

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[81] GTA Child Health Network, Independent Review Committee, July 2004.

[82] "Are we regionalized enough? Early-neonatal deaths in low-risk births by the size of delivery units in Hesse, Germany 1990-1999." Heller G, Richardson DK, Schnell R, Misselwitz B, Kunzel W, Schmidt S. Int J Epidemiol. 2002 Oct; 31(5): 1069-70.

[83] "Relation between size of delivery unit and neonatal death in low risk deliveries: population based study." Dag Moster, Rolv Terje Lie, Trond Markestad. Arch Dis Child Fetal Neontal Ed 1999;80:F221-F225

While there are not currently major concerns about the quality of surgical services offered in Stephenville, the increased risk and the high cost of a low volume service makes continuation current configuration of surgical services economically infeasible for this Region.

Stephenville is less than an hour drive from the Regional Referral Hospital in Corner Brook. It is quite expensive for the region to maintain two surgical services within a relatively short distance. There is sufficient physical space is available in the Operating Suites at WMRH to accommodate all surgical activity from Stephenville that requires regional or general anesthesia.

Surgical procedures requiring general or regional anaesthesia should not be performed at the Sir Thomas Roddick Hospital.

And if the surgical Service and supporting anaesthesia is consolidated in Corner Brook, best practice suggests definitively that if there are low volumes, no back up from paediatrics and no back up from surgery and anesthesia, there should be no planned deliveries at STRH.

If, as is recommended, the hospital no longer provides inpatient care for surgical or obstetrical patients, there will be excess inpatient bed, nursing and allied health staff capacity in the hospital. WHCC could use this freed up capacity to accommodate ALC patients from WMRH who are expected to have an extended wait for appropriate accommodation.

The radiology service at Sir Thomas Roddick Hospital performs general radiography, IVP if the physician is available to do the IV push, ultrasound and diagnostic mammography. Cross-trained staff work in Diagnostic Imaging as well as Laboratory Services. There is no PACs system in the Region and basic Meditech is not yet fully implemented. This obviously reduces the functionality of the Region and the services in Stephenville.

Corner Brook provides interpretation of radiology examinations and support for more complex investigations such as echocardiograms and CT Scans. It is reported that some radiology examinations are being sent to St. John's for interpretation because Corner Brook has limited staff and limited time to manage the volume of films generated in the region. It is also reported that an urgent outpatient CT scan has an average wait time of 6-8 weeks whereas an inpatient CT scan is generally completed in 1-2 days. Appointments for Barium studies are reported to take as long as 3-4 months: consequently physicians are replacing barium studies with endoscopic procedures. The VP Medical Services should review the WMRH handling of Radiology examinations from Stephenville and ensure that service patients from Stephenville receive equitable access to Imaging Technologies and Radiologist services.

There is a mix of fee for service and salaried physicians in Stephenville but no performance agreements exist for the salaried physicians. The salaried physicians can also bill fee-for-service for such activities as ED coverage, On-Call Coverage and OR assistance. This combination of compensation and the lack of performance agreements have caused problems with access to physician office services and specialty services for patients in the community. The Corporation, in concert with the Department of Health and Community Services should review the compensation structure and performance agreements for physicians in this Region and determine a formula that improves upon the existing situation.

Recommendations:

It is recommended that:

(170) The WHCC should discontinue elective deliveries at the Sir Thomas Roddick Hospital.

(171) The WHCC should discontinue elective surgeries requiring general or regional anaesthesia at the Sir Thomas Roddick Hospital.

7.3.2 Western Memorial Regional Hospital, Corner Brook

Secondary level hospital services in the Western Region are delivered at the Western Memorial Regional Hospital.

Secondary level hospital services in the Western Region are delivered in Corner Brook at the Western Memorial Regional Hospital and this centralization of secondary services is entirely appropriate.

The Western Memorial Regional Hospital averaged 172 staffed beds (excluding bassinets and the ALC beds on 3D) in

2002/03 and has a broad range of primary and secondary level medical services. These include:

- Family Medicine
- General Internal Medicine
- General Surgery
- Critical Care
- Neurology
- Nephrology
- Obstetrics and Gynecology
- Ophthalmology
- Orthopedics
- Otolaryngology
- Pediatrics
- Plastic Surgery
- Psychiatry
- Respirology
- Rheumatology
- Urology
- Anesthesiology
- Diagnostic Imaging
- Pathology and Laboratory Medicine

Appropriately, there is no substantive tertiary care such as neurosurgery, cardiac surgery or thoracic surgery at WMRH.

There is no dedicated plastic or vascular surgeon in the region. Appropriately, there is no substantive tertiary care such as neurosurgery, cardiac surgery or thoracic surgery at WMRH. The range of services provided at the WMRH is quite appropriate to its role within the health care system in Newfoundland and Labrador. There is no intent in the province to develop a second tertiary Centre outside St. John's.

There are approximately 20,000 visits to the ED annually and another 10,000 visits to the general practice area adjacent to the ED. Patients with a (CTAS) triage score of 5 flow to an area where General Practitioners provide coverage on weekends and after 6pm on weekdays. A casualty officer sees patients in the ED.

ED patients awaiting admission are often held in the outpatient recovery area.

There are no admitted patients on stretchers in the ED. However, patients from the ED awaiting admission are often held in the 9 bed outpatient recovery area in the immediate vicinity. There can be as many as 6 admitted patients in the OPD recovery area and, on average these patients stay in the area for almost 36 hours. The OPD recovery area is intended be reserved for patients requiring chronic pain management, endoscopy, and radiology procedures such as myelograms. The area is also used for medical day care. Additional nursing staff is called back to care for these admitted patients after the regular day shift of nurses has finished. Holding patients in this area is an obvious problem. Patients cannot get the ongoing care they need in a busy OPD setting and the activities intended to occur in the OPD recovery are compromised. When the ALOS issues are dealt with in the hospital there will be sufficient bed capacity to admit these patients and free up the area for its intended purpose.

The use of the OPD recovery area for ED patients waiting admission is inappropriate. More effective management of the beds within the hospital would allow these patients to be admitted and free up the OPD area for its intended purpose.

The average bed allocation and occupancy at WMRH over the past 6 years is presented in the following Exhibit.

Exhibit 7.1
Occupancy data from WMRH Occupancy Rate by Service Report, generated June 26, 2004

Service	1998/99		1999/00		2000/01		2001/02		2002/03		2003/04	
	Beds	% Occ.	Beds	% Occ.	Beds	% Occ.	Beds	% Occ.	Beds	% Occ.	Beds	% Occ.
Medicine	52	132%	54	124%	52	124%	60	116%	56	129%	58	126%
Surgery	75	69%	77	66%	66	75%	56	83%	55	80%	54	79%
Obstetrics	19	45%	18	47%	11	63%	11	69%	11	57%	9	68%
Paediatrics	16	67%	16	68%	13	70%	12	79%	12	68%	12	62%
Psychiatry	23	82%	23	72%	21	73%	21	75%	21	82%	21	88%
Palliation	-		-		-		-		9	40%	8	44%
Total (excl. ICU & 12 bed ALC unit)	184	86%	188	82%	163	89%	159	93%	164	92%	162	93%

Almost 20% of the hospital's beds are occupied by ALC patients.

There is a wide array of operational issues at the Western Memorial Regional Hospital and many of these have been addressed previously in this report. In particular bed management is a major problem. There are approximately 30 Alternate Level of Care patients, almost 20% of the beds staffed and in operation, throughout the facility who cannot be adequately cared for in the midst of an acute medical setting and they continue to disrupt the flow of acute medical patients. These patients would be best served if they could be discharged more expeditiously to the appropriate level of care. If the remain in an acute care setting they would be better served if they were clustered so that an appropriate care regimen could be established by the appropriate number of nursing staff with the appropriate training and skills. There are a number of options for co-location of ALC patients including the creation of ALC capacity at the Sir Thomas Roddick Hospital in Stephenville.

ALC patients who will have extended waits for placement should be transferred STRH for care while waiting placement.

It is recommended that WMRH ALC patients who will have extended waits for placement in an appropriate facility should be cared for at STRH. This will reduce the number of ALC patients at WMRH and thus free-up capacity to care for acute care patients

Recommendation:

It is recommended that:

(172) The VPs Operations for Bay St. George, Rural and Corner Brook should develop processes for the transfer of ALC patients from WMRH to STRH.

Medical units at WMRH are running at an average occupancy rate of more than 120%.

Medical units at WMRH are running at an average occupancy rate of more than 120%. This is driven by decisions of the medical staff to admit patients regardless of the availability of beds. This situation places a great strain on the hospital and could be avoided if the medical staff would focus more on managing and reducing length of stay for their patients, participate more actively in discharge planning and develop and implement clear guidelines for patient admission so that the number of MNRH is reduced. In particular there should be active scrutiny of elderly patients presenting to the Emergency Department to avoid admission if possible. If the patient requires admission discharge planning should begin immediately. Discharge planning is inadequate at best and often non-existent at WMRH. A concerted effort must be made and fully supported by the RMAC and Discipline Chiefs to develop a comprehensive approach to discharge planning. The Most Responsible Physician should be actively involved in discharge planning for his/her patients. Discharge planning should begin before the patient is admitted to hospital.

Recommendation:

It is recommended that:

(173) The RMAC should require Most Responsible Physician participation in discharge planning that begins at, or before, the time of patient admission to the hospital.

As has been discussed, the Corporation should consolidate planned deliveries and surgeries requiring general or regional anaesthesia at the WMRH. The VP Medical and the RMAC should make the necessary arrangements for the consolidation of these services at the Western Memorial Regional Hospital. As part of these arrangements surgical equipment and instruments from the STRH and CLLHC sites should be relocated to the WMRH site. At the same time, WHCC should consider expanding its outreach programs of visiting surgeons to communities throughout the region. This program might include mobile clinical facilities equipped to provide endoscopy and other technology-based diagnostic and therapeutic services.

Recommendations:

It is recommended that:

(174) The VP Medical and the RMAC should arrange for the consolidation of all obstetrical deliveries in the Region at the Western Memorial Regional Hospital.

(175) The VP Medical and the RMAC should arrange for the consolidation of all surgical services requiring general or regional anesthetic in the Region at the Western Memorial Regional Hospital.

There are significant issues in medical management of psychiatric patient care processes.

General practitioners and psychiatrists are admitting to the psychiatry ward. Issues on this ward include the high ALOS, many MNRH patients, delays in attending physicians' evaluation of patients who are admitted from the ED and on occasion, an inappropriate routine for assessing patients who are on constant observation.

There is very low occupancy of the palliative care unit.

The palliative care unit has developed strict criteria for admission where end-of-life patients are accepted. End of life is defined as death anticipated within 6-8 weeks. The unit had an average occupancy of only 40% in 2002/03. There are a number of chronic palliative patients occupying acute medical beds throughout the hospital who could benefit from the care provided in a well managed palliative care unit and at the same time a more appropriate use could be made of the acute medical bed. Consideration should be given to broadening the admission criteria for this unit.

The 12 bed pediatric unit is a combined medical, surgical and mental health unit with an average occupancy rate of about 80%.

7.3.3 Savings from Realignment of Hospital Care

Realignment of hospital services in WHCC will improve care and provide savings of $215,000.

The proposed realignment of hospital services in WHCC will provide for better quality of care and improved patient safety. It will also reduce the cost of care:

- Consolidation of hospital birthing services at WMRH will reduce risk and improve the quality of care but it will not provide any net savings to WHCC[84].
- Consolidation of surgical services requiring general and regional anaesthesia at WMRH will provide savings of approximately $215,000[85].
- Creation of an ALC unit at STRH will not reduce WHCC operating costs but it will:
  - free up capacity on the medical surgical units at WMRH to accommodate the consolidation of surgery requiring general or regional anaesthesia.

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[84] Staffing related to birthing and the related costs will need to be transferred from STRH to WMRH to provide care for the births being transferred from STRH to WMRH. In this analysis, any direct cost savings related to birthing have already been recognized in the calculation of savings at both sites from achieving best quartile operating efficiency targets for birthing. Thus there will be no additional net savings to WHCC from the consolidation of birthing. Experience suggests, however, that service consolidation facilitates and provides the catalyst for achieving efficiencies.

[85] After achieving the recommended operating efficiency target, the OR/PAR at STRH would have an operating cost of $776,562 that would be eliminated when surgery requiring general or regional anaesthesia is consolidated at WMRH. The cost of accommodating these additional surgeries at WMRH, after achieving the proposed operating efficiencies in the WMRH OR/PARR, would be $561,800.

We are estimating no changes in costs of the nursing units at either WMRH or STRH since surgical patient days at STRH will be replaced with ALC patient days and ALC patient days at WMRH will be replaced with surgical patient days. Although the content of care for these patients will be different, the amount and cost of nursing care will be similar. Thus the net savings from reducing surgical activity at STRH will be approximately $215,000.

- make use of available capacity at STRH created from the consolidation of birthing and surgeries at WMRH at no additional cost.

7.4 Long-Term Care Facilities

7.4.1 Bay St. George Long-Term Care Centre, Stephenville

The Bay St. George Long Term Care Centre has 114 beds, 110 LTC and 4 outreach beds. There is no age limit placed on admission and patients are primarily levels 3 and 4. Units are equipped with "Wanderguard Technology" and there is a 22-bed protective care unit as well as a chronic care unit with 26 beds, 24 are private rooms, 4 outreach beds and two wards of 33 beds. Occupancy is in the range 90-94%. The Centre primarily supports the Sir Thomas Roddick Hospital and is not as strongly linked to the Western Memorial Regional Hospital.

The staff of the Bay St. George Centre are an excellent resource to the Region and their skills should be consulted more widely to assist the acute care system in dealing with its elderly patients. There is a good range of services and a strong interdisciplinary model of care that was highlighted by the Accreditation surveyors for its excellence in team planning and charting. Programs include home care, meals on wheels, palliative care, adult day hospital, short stay respite, slow rehabilitation, seating and adaptive aids among others.

The Regional Dysphagia Management Program is an important and impressive effort of WHCC and HCSW.

Some programs in the region are established jointly with the Community Services Board. As a result of the work of the ID Dysphagia Management working group, the two boards implemented a Regional Dysphagia Management Program. This program is offered jointly by the Dieticians from WHCC and the Speech/Language Pathologist from Community Care. The Accreditation surveyors indicated that the regional implementation of this program was an impressive achievement for LTC[86].

The Centre has a bus that transports outreach clients. The Centre also prepares all meals for the Sir Thomas Roddick Hospital.

Three physicians who share 1:3 call support the Centre. In addition to the nursing staff, there are supports from recreational therapy, social work, dietician and physiotherapy.

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[86] This program is provided to both residents of BSG LTC facilities and patients in STRH.

The Centre has developed an excellent linkage with the community pharmacist who visits every day to support the medication needs of the residents, provide clinical pharmacy and attend team planning meetings. Medications are reviewed every three months for all residents.

There could and should be more involvement of the staff of the Centre with the EDs and with the discharge planning processes in the hospitals. LTC residents are sometimes referred into the Centre prematurely and the hospitals may be admitting Elderly patients inappropriately from the hospital EDs. The Hospital Emergency Departments should consider supports available in the Region from LTC facilities to better assess elderly patients presenting to the ED so that admission can be avoided whenever possible and, if patients are admitted, discharge planning can start in the ED.

The Centre also manages 38 cottages that are provided on the basis of a flat rate fee and the Emile Benoit House for seniors that are occupied on a % of income basis.

7.4.2 Corner Brook Long Term Care Services

WHCC has proposed replacement of all exisiting LTC Beds in Corner Brook with a new LTC facility.

There are 225 LTC beds in Corner Brook under the jurisdiction of the Corporation. Some of these beds are vacant because the rooms don't fit with the requirements of the patients needing LTC placement. The beds are distributed across 3 facilities. There are two 31 bed units at the Western Memorial Regional Hospital, 66 beds at the O'Connell Centre and 103 beds (including 2 respite beds) at the Interfaith Home. The O'Connell Centre houses the veterans' unit. There is a single entry assessment and placement system in place for the Western Region. All facilities have resident councils and there are varying degrees of organized programming for residents.

The Corporation has submitted a proposal for a new $53M LTC facility for Corner Brook that would replace all existing LTC beds in Corner Brook under the Corporation's jurisdiction. The new facilities would provide a more effective setting for the delivery of long-term care services and thus would hopefully facilitate reduction in the number of ALC patients and the number of ALC days for WMRH patients requiring discharge to a long-term care treatment setting in Corner Brook. The new facility is also intended to house the kitchen requirements for the Western Memorial Regional Hospital. As a result, this initiative would also facilitate further cost reductions in food services for WHCC.

7.4.2.1 LTC Corner Brook 5th and 6th Floors WMRH Site

The WMRH 5th floor LTC unit is a locked unit with "Wanderguard" technology. When patients are no longer mobile they are moved to another facility. The unit has a 31 bed capacity including 2 beds for assessment and all rooms have 2 or 3 beds. The WMRH 6th floor LTC unit is a combination of LTC and CCC. The unit is not locked. A number of pilot projects have been initiated by the nursing staff on this unit for the purpose of increasing the role of the LPN and focusing more of the role of the RN on coordination and supervision of patient care. Patients are heavy care and may have tracheotomies or require ventilation or GI feeding and some patients are post-op hip fractures. There have been some growing pains with the new care models but staff is moving in the right direction.

7.4.2.2 O'Connell Centre

The O'Connell Centre has 66 beds. There are two LTC units that are 26 beds and 22 beds respectively. The 26 bed unit is primarily reserved for residents with dementia. There is an 18 bed DVA unit where admission to is decided by DVA. There is additional staff on the DVA unit to provide for the care of dementia patients. There is a TEC Committee (Toward Excellence Committee) that has been established through support from DVA. The Committee's mandate is to identify process improvement opportunities across all units.

The Centre also houses an 8 bed provincial rehabilitation unit that is under the management of rehabilitation services and offers programs to patients from throughout the province for amputees, seating program, stroke program, speech program and specialized programming for individuals with multiple sclerosis. There is also an outreach program.

7.4.2.3 Interfaith Home

This facility was constructed in the 1960s and has a total of 103 beds across 3 units. There are independent living cottages nearby that are managed by WMRH and not by the Interfaith Home. St. Luke's Unit has 24 beds including 2 respite beds and a special need room for residents who may require palliation or have some form of special care requirement. Most of the residents have dementia but their care needs are not as heavy as residents on other units in the facility.

The Good Samaritan unit has 24 beds and the Newfoundland Memory Lane Unit has 45 beds. This latter unit has two sides that are covered by a common nursing staff. There is a cluster of 21 beds on one side and a cluster of 24 beds on the other side.

7.4.2.4 Protective Care Units

WHCC should consider consolidation of its protective care units to a single site.

There are two protective care units within the Corporation including a 31 bed unit at WMRH that had 5 vacancies at the time of the review and another unit at the Bay St. George LTC facility with 22 beds. There may be some merit in considering the consolidation of these units in order to maximize the efficiency and create further critical mass of patients and therefore opportunities for focused staff expertise.

8.0 Summary of Savings

This review has identified opportunities to improve the quality and effectiveness of services and to achieve $9.4 million in savings through changes to operating practice and realignment of services

This review has identified many opportunities to improve the quality and effectiveness of services and to achieve savings through changes to operating practice. The identified savings opportunities amount to $9,936,000 million in total.

Implementation of recommendations relating to achievement of improved hospital utilization and clinical efficiency could lead to annual savings of $2,228,000:

- Reduce rate for admission of potentially avoidable hospitalization conditions to 103 admissions per 10,000 population. $337,000
- Review of appropriateness of acute care gynaecology services. $213,000
- Reduce use of inpatient days through improvements in clinical efficiency. $1,678,000

Implementation of recommendations relating to achievement of improved operational efficiency could lead to annual savings of: $5,493,000

Moderate reduction in sick time usage would provide savings of approximately: $1,400,000

Implementation of recommendations relating to restructuring and realignment of clinical services could lead to annual savings of $815,000:

- Consolidate clinic services into 13 continuing sites in the region. $600,000
- Consolidate all surgical services in the Region requiring general or regional anesthetic at WMRH. $215,000[87]

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[87] Net savings, OR/PARR only.

If WHCC moves expeditiously to implement the recommendations of this report, we are confident that it can improve the quality and safety of patient care, achieve an operating surplus, eliminate the accumulated operating deficit, retire the bank debt and restore the fiscal integrity of the corporation.

If WHCC were to achieve these $9.94 million in operating savings:

- The annual operating deficit would be eliminated. If these savings had been achieved, the projected 2004/05 operating deficit of $4.1 million[88] would be converted to an annual operating surplus of approximately $5.8 million.
- The accumulated operating deficit of $22.5 million (and the projected annual operating deficit at the end of 2004/05 of $26.6 million) could be addressed within ten years, as required by the DOHCS.
- The bank overdraft of $15.3 million could be retired.
- There would be internally generated funds available for reinvestment to both improve services to the community and support achieving even greater efficiencies. Several areas for reinvestment have been recommended in this report, including:
  - Implementation of a single unit-dose distribution system across the organization Introduction of PACS.
  - Redevelopment of the endoscopy suite at WMRH
  - Implementation of comprehensive capital equipment replacement and renewal for Diagnostic Imaging.
  - Consolidation of sterilization activity to one Sterile Processing operation
  - Acquisition or development of an appropriate nursing workload measurement system
  - Enhancement to clinical education/practice support for the ADNs
  - Replacement of manual beds in the medical program
  - Augmentation of recreation services to provide more psycho-social stimulation for LTC residents
  - Consolidation of protective services for LTC residents in the region onto one site
  - Replacement of LTC facilities in Corner Brook
  - Enhancements and expansion of community services to support patient discharge

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[88] As reported by the Department of Health and Community Services in November 2004.

- Increased investments in clinical, operational and management information and communication technologies and systems.
- Acquisition of HRIS software to support human resources management
- Enhancements in occupational health and safety programs
- Enhancement in management reporting to Board, Senior Management and Front-Line Managers.
- Introduction of advanced food production technologies.

As has been indicated in the body of the report, most of the savings opportunities can be realized by the second fiscal year following this report. A small number that will require changes in staff behaviour may take an additional two years to be realized fully. Also a number of recommendations will require capital investments that will be dependant on either or both Department approvals and generation of sufficient funds to cover the investments. However, if WHCC moves expeditiously to implement the recommendations of this report, we are confident that it can improve the quality and safety of patient care, achieve an operating surplus, eliminate the accumulated operating deficit, retire the bank debt and restore the fiscal integrity of the corporation.

Appendix:

Listing of Recommendations

Recommendations

1.0 Background & Objectives

No Recommendations

2.0 Financial Review

No Recommendations

3.0 Governance and Management

3.3 Governance Structures and Processes

(1) The Minister of Health should ensure that appointees to the WHCC are aware that they are appointed to reflect the interests of, not represent or advocate for their home communities.

(2) The Board of WHCC should modify the orientation process for new Board members so that they are clearly made aware of their responsibilities to the Corporation.

(3) The Board should develop and implement a formal, comprehensive program for the orientation of Board members.

(4) The Board should make participation in the Board orientation program mandatory for all Board members.

(5) The Board should develop a Board evaluation process that includes input from Board members and key stakeholders.

(6) The Corporation should establish a policy that opens meetings of the Board of WHCC and of its committees to the public.

(7) The Board should establish a clear policy that articulates a narrowly defined set of subject matters that will be discussed in camera by the Board and its committees.

(8) The Board Chair should direct management to enhance the information supplied to the Board related to the Board's critical governance responsibilities.

(9) The Board of WHCC should revisit its articulation of 'strategic issues' to focus on the desired directions for the organization.

(10) The Board should draw upon its Strategic Plan to formally articulate annual objectives for the organization.

(11) The Board should formally articulate the organization's parameters for its annual operating plan and budget.

(12) The Board should take more responsibility for the financial health of the Region by insisting that management aggressively pursue opportunities to minimize costs and maximize non-government revenues.

(13) The Board should take more responsibility for the financial health of the Region by implementing reasonable service restructuring to achieve necessary cost savings.

(14) The CFO should further expand and enhance financial and statistical reporting to the Board to include more comprehensive analyses of variances from plan that provide not only the cause of the variance but also planned potential corrective actions.

(15) The CFO should expand financial reporting to the Board to include reporting of the clinical and operational performance underlying the region's financial performance.

(16) The CFO should further expand and enhance statistical performance reporting to the Board to provide comparisons with similar organizations in Canada.

(17) The Board should direct that management further enhance the Board's Corporate Performance Improvement Program to provide for more comprehensive monitoring of quality, for comparisons with external benchmarks and for more focused and structured reporting to the Board.

(18) The Quality Council should ensure that important utilization and quality issues identified during

Performance Improvement Team presentations or corporate indicator reviews are referred to the appropriate individuals or groups and followed up at subsequent meetings to ensure that appropriate action has been taken.

(19) The Board should set annual performance expectations and objectives for the CEO that incorporate the objectives for the organization.

3.4 Management Structures & Processes

(20) The CEO should develop a refined model for organizing and managing the services delivered by the corporation.

(21) The Chair of the Board should direct management to establish a process for setting annual objectives for the health care organization.

(22) The CEO and the CFO should modify the operational planning and budgeting process to more formally and explicitly include consideration of patient volume, content of care, departmental workload and productivity targets.

(23) The CEO, CFO and Corporate Director Clinical Decision Support should introduce a Quarterly Review Process to provide for better performance management and expenditure control.

(24) The CFO and the Corporate Director Decision Support should extend management reporting to include measures that will better support identification and explanation of variance from plans.

(25) The CFO should ensure that all analysis of variance includes consideration of corrective action and/or the implications of the variance for year-end departmental, program and corporate results.

(26) The Vice President, Human Resources should acquire HRIS software to support human resources management at WHCC.

(27) The Vice President Human Resources should provide for occupational health resources for employee health triage for employees who become ill while at work, employee wellness program planning and for

early return to work for employees off due to non-work related illness/accident.

3.5 Medical Staff Involvement in Governance and Management

(28) The Board should modify its medical staff bylaws to create the role of Regional Chief of Staff.

(29) The Board should modify its medical staff bylaws so that the Regional Chief of Staff serves as Chair of the RMAC.

(30) The Board should modify its medical staff bylaws to clearly articulate that Local Chiefs of Staff and the Regional Chiefs of Disciplines are responsible to the Regional Chief of Staff for all aspects of the quality of medical care and professional practice.

(31) The Board should review, revise and update its Medical Staff Bylaws.

(32) The Regional Chief of Staff and the Vice President Medical Services should develop and implement a more formal recruitment and selection process for the Regional Discipline Chiefs and local Chiefs of Staff.

(33) The VP Medical Services should develop a strategy to make educational sessions related to leadership and management skills a priority for physician leaders.

(34) The CEO should make the Chair of RMAC a member of the Senior Management Team.

(35) The RMAC should develop and implement policies and procedures for dealing with unacceptable absenteeism of members of the RMAC.

(36) The Chair of the RMAC should restructure the RMAC agenda to provide for more time for discussion related to critical decisions.

(37) The Chair of the RMAC and the VP Medical Services should ensure that items on the RMAC agenda have sufficient information to support decision making.

(38) The VP Medical Services should develop a process to ensure that outstanding items are brought forward for resolution in a timely manner.

(39) The Board should eliminate all Local Medical Advisory Committees.

(40) The VP Medical Services and the RMAC Chair should move immediately to establish a Credentials Committee as provided for in the Bylaws.

(41) The RMAC Chair must ensure that a reliable and comprehensive process is established to ensure implementation of professional performance directives of the RMAC.

(42) The RMAC Chair should ensure that the RMAC is the only entity that can authorize changes to the formulary or policies regarding drug substitution.

(43) The Pharmacy and Therapeutics Committee should develop criteria for the introduction of new drugs into the formulary.

(44) The Chair of the RMAC should ensure that the financial impact of a proposed new drug is approved by the Senior Management before the drug is approved by the RMAC for introduction into the formulary.

(45) The Chair of the Board should reactivate and establish a regular meeting schedule for the Joint Conference Committee.

(46) The Bylaws Committee should immediately review and recommend to the Board appropriate revisions the Medical Staff Bylaws.

(47) The RMAC should work with the CME Committee to develop and implement a strategy to ensure that CME is attended across the Corporation.

(48) The Chair of the RMAC and the VP Medical Services should work with the CME Committee to develop and deliver educational sessions for physician leaders.

(49) The RMAC Chair should establish a means of receiving timely and relevant information from the

Infection Control Committee as part of a full and comprehensive Medical Quality Review Initiative.

(50) The RRUC should establish specific targets for key corporate utilization management indicators each year and monitor performance on a regular basis.

(51) The RRUC should establish targets for length of stay performance based on the Best Practice Review clinical efficiency targets and expressed in terms of CIHI ELOS performance.

(52) The RMAC should expand the mandate of the Regional Resource Utilization Committee to include a more comprehensive look at all aspects of the impact of medical care on the resources of the corporation.

(53) The VP Medical Services should establish a process to facilitate review all aspects of the impact of medical care on the resources of the corporation.

(54) The Chief of Surgery should take action to stop the inappropriate use of the surgical suite for elective cases.

(55) The RMAC Chair and the VP Medical Services should develop and implement an appropriate and relevant Medical Quality Improvement Program.

(56) The RMAC should suspend the privileges of Medical Staff that do not complete medical records in a timely fashion.

(57) The RMAC should appoint an appropriate member of the Medical staff to participate in the Corporate Quality Council.

(58) The RMAC Chair and VP Medical Services should formalize the process for development of medical care and medical staff policies.

(59) The RMAC should establish a policy and process for transfer of patients between and within the various facilities of the Corporation.

(60) The VP Medical Services and the RMAC should review the medical manpower plan on annual basis.

(61) The VP Medical Services should ensure that appropriate impact analysis is completed for all new and replacement physicians.

(62) The VP Medical Services should maintain contact with sponsored physicians and ensure that obligations are fulfilled.

(63) The VP Medical Services should develop and negotiate service agreements with all salaried physicians.

(64) The Chiefs of Discipline should ensure that Physicians' attendance at Meetings of the Discipline is a part of annual performance assessment before re-appointment.

(65) The VP Medical Services should develop job descriptions for the role of Discipline Chief.

(66) The VP Medical Services should negotiate contracts and performance expectations with each Discipline Chief.

(67) The RMAC Chair supported by the VP Medical Services should evaluate the performance of each Discipline Chief annually.

3.6 Nursing Management

(68) The Chief Executive Officer (CEO) should create a non-rotating Chief Nursing Officer (CNO) position separate from the role of Vice-President.

(69) The CNO should add advanced practice and/or education roles at WHCC to support best practice nursing care in the region.

(70) The CEO should change the titles of the nursing administrative roles to better reflect the work content of these positions.

(71) The Chief Nursing Officer should streamline the operations of the Regional Nursing Advisory Council and ensure appropriate representation of front-line nursing staff on this council.

(72) The CEO should review the management and committee structures to ensure clarity of roles and to reduce the number of meetings.

(73) The CEO should develop structures and processes that improve the timeliness of policy approvals.

4.0 Programs & Services

(74) The WHCC Board should establish a target rate for admission of potentially avoidable hospitalization conditions of 103 admissions per 10,000 population.

(75) The WHCC MAC should coordinate a review of appropriateness of acute care gynaecology services and expand the use of standardized protocols.

5.0 Clinical Efficiency Analysis

(76) The WHCC Board should establish a target for reduction of use of inpatient days based on the results of the clinical efficiency analyses conducted during the Best Practices Review.

6.0 Operations Analysis

6.1 Overarching Issues in Nursing Services

(77) The Chief Nursing Officer and Directors of Nursing should develop and implement guidelines for the use overtime.

(78) The Chief Nursing Officer and Chief of Staff should develop guidelines to control the use of callback.

(79) The Chief Nursing Officer should ensure that implementation of nursing callback guidelines reduces expenditure by 20% from spending on nursing callback in 2003/04.

(80) The Department of Health and Community Services should revise its transport/escort guidelines such that care requirements determine who accompanies the patient.

(81) The Chief of Staff and the Chief Nursing Officer should develop and implement guidelines for assigning staff to patient escort based on patient need and acuity.

(82) The Chief of Staff and the Chief Nursing Officer should establish and maintain standards and guidelines for the use of constant observation.

(83) The RMAC should reconsider its decision that constant care is a medical rather than a nursing decision.

(84) The CNO should acquire or develop an appropriate workload measurement system for use at WHCC.

6.2 Western Memorial Regional Hospital Nursing

(85) The CEO and the VP-Medical Services should eliminate the use of overflow beds.

(86) The CEO and the VP-Medical Services should develop and implement a plan to co-locate WMRH ALC patients in a single nursing unit.

(87) The VP Clinical Operations, the CNO, and the Director of Nursing for WMRH should advance the implementation of a model of total patient care on the inpatient units at WMRH.

(88) The VP Clinical Operations and the Director of Nursing should improve the understanding and acceptance of the authority and responsibility of the PCC.

(89) The VP Clinical Operations and the Director of Nursing should ensure adequate clinical education/practice support for the ADNs.

(90) The VP Clinical Operations should ensure that nursing is provided with the basic equipment for nursing care.

(91) The VP Clinical Operations should replace the manual beds in the medical program as soon as feasible.

(92) The VP Clinical Operations should ensure that nursing input is included in equipment acquisition decisions affecting nursing care.

(93) The VP Clinical Operations should ensure that there is adequate orientation to and training in the use of new equipment.

(94) The CEO should initiate a process to plan for and implement renovations of WMRH nursing units to provide for improvements in the efficiency and quality of nursing care.

(95) The VP Corporate Services, Regional Director of Environmental Services working with the VP Clinical Operations and Director of Nursing should review and redesign work processes for laundry services to improve support for the patient care units.

(96) The CEO and the VP-Medical Services should close 4B as soon as possible.

(97) The Director of Nursing should adjust staffing on the medical units at WMRH to achieve nursing productivity of 5.52 worked hours per patient day.

(98) The VP Medical Services should establish and implement an improved process for booking and scheduling surgical procedures.

(99) The VP Medical Services and the Chief of Surgery should establish definitions for the types of cases that may have access to the ORs at WMRH for after hours surgery.

(100) The VP Medical Services should establish policies and procedures for controlling after hours access to the ORs at WMRH.

(101) The VP Medical Services should establish a process for monitoring, reporting and enforcing the after-hours surgery rules at WMRH.

(102) The Chief of Surgery should ensure that the after hours surgery rules at WMRH are enforced.

(103) The OR Committee should review OR utilization by each surgeon on a quarterly basis.

(104) The VP-Medical Services should institute a clear discharge policy that requires all surgeons to have their patients discharged by 11:00 am daily.

(105) The VP Clinical Operations should establish the PAC as a stand-alone unit dedicated only to the evaluation and education of patients for surgery.

(106) The Director of Nursing should reduce staffing on the Same Day Surgery Unit at WMRH to achieve productivity of 1.86 worked hours per visit.

(107) The Assistant Director of Nursing Perioperative Program and the Chief of Surgery should establish a process to improve the start time and turn around times.

(108) The VP Medical Services and the Chief of Anaesthesia should develop a manpower plan to recruit sufficient additional anaesthetists to provide staffing for the PAC and to conform with accepted standards for on-call coverage.

(109) The Assistant Director of Nursing Perioperative Program and the Chief of Surgery should ensure implementation of the recommended processes to improve operating efficiencies.

(110) The Director of Nursing Acute Care should reduce staffing of the ORs at WMRH to achieve a productivity of 5.98 worked hours per case at such time as the major issues associated with the OR have been addressed.

(111) The Director of Nursing Acute Care should reduce staffing of the PARR at WMRH to achieve productivity of 1.84 worked hours per case.

(112) The VP Clinical Operations should develop and implement plans to redevelop the endoscopy suite at WMRH.

(113) The Director of Nursing Acute Care should review and revise booking processes for the OPD/RR at WMRH.

(114) The Director of Nursing Acute Care should adjust operations and staffing of inpatient surgery at WMRH to achieve a productivity target of 5.78 worked hours per patient day over the next two years.

(115) The Director of Nursing should reduce staffing in the ICU at WMRH to achieve nursing productivity of 17.41 worked hours per patient day.

(116) The Director of Nursing should reduce staffing for Birthing at WMRH to achieve productivity of 9.04 worked hours per patient day.

(117) The Director of Nursing should reduce staffing for paediatric nursing at WMRH to the recommended minimum staffing levels until such time as workload increases beyond the capacity for workload of this level of staffing and then 7.94 worked hours per patient day should be used as the productivity target.

(118) The Director of Nursing should maintain the current productivity performance of 5.40 worked hours per patient day of the Psychiatry Unit at WMRH.

(119) The Director of Nursing should reduce staffing for palliative care at WMRH to the recommended minimum staffing levels until such time as workload increases beyond the capacity for workload of this staffing and then 5.82 worked hours per patient day should be used as the productivity target.

(120) The Director of Nursing should maintain the current productivity performance of 1.0 worked hour per visit of the ED at WMRH.

(121) The VP Clinical Operations and the VP Medical Services should eliminate the practice of holding admitted patients in the Medical Day Care Area.

(122) VP Clinical Operations should explore alternative locations for Medical Day Care to ensure a better quality of patient care.

(123) The Director of Nursing should maintain the current productivity performance of 2.09 Worked Hour/Visit of the Medical Day Care Unit at WMRH.

(124) The VP-Medical Services and the Director of Nursing should discontinue the Home Care (Dressing) Clinic at the WMRH.

(125) The Director of Nursing should maintain the current productivity performance of 1.25 worked hours per visit of the Ambulatory Care Clinics at WMRH.

6.3 Sir Thomas Roddick Hospital

(126) The Director of Nursing should reduce staffing for the medical unit at STRH to achieve productivity of 5.23 worked hours per patient day.

(127) The Director of Nursing should reduce staffing for the surgical services nursing unit at STRH to achieve productivity of 5.43 worked hours per patient day.

(128) The Director of Nursing should reduce staffing to the recommended minimum staffing levels for ICU at STRH.

(129) The Director of Nursing should reduce staffing to the recommended minimum staffing levels for the OR/PARR at STRH.

(130) The CNO and VP Rural along with the recreation staff should review recreation services to determine how they might be augmented to provide more stimulation for LTC residents.

(131) The VP Rural should review the allocation of staff resources among the Health Centres in the region and rebalance staffing to ensure equity among the Centres.

6.5 Long Term Care Services

(132) The Chief Nursing Officer and the Directors of Nursing should develop and implement a new model of nursing care delivery for LTC that includes RN and LPN providers working to their full scope of practice and that introduces the role of PCA.

(133) The Chief Nursing Officer should establish a professional resource role for nursing staff in LTC.

(134) The VP Clinical Operations (BSG) and the VP Human Resources should reallocate education resources to support site-specific needs.

(135) The Director of Nursing should reduce staffing for the rehabilitation service to achieve productivity of 6.14 worked hours per patient day.

(136) The Vice Presidents for Clinical Operations should consolidate protective services for LTC residents in the region onto one site.

6.6 Therapeutic Services

(137) The Director of Pharmacy should work with the P&T Committee to develop additional policies to strengthen physician compliance to the region's formulary.

(138) The Director of Pharmacy should work with the P&T Committee to improve drug utilization and monitoring.

(139) The Director of Pharmacy should implement a single unit-dose distribution system across the organization.

(140) The Director of Pharmacy should work with the P&T Committee to reduce the amount of medication being provided to hospital outpatients.

(141) The Director of Pharmacy should establish a target for WHCC drug costs at 2.33% of Net Operating Costs.

(142) The Regional Director should adjust staffing to achieve productivity of 0.80 hours per visit for physiotherapy services at the WMRH & RGHC.

(143) The Regional Director should adjust staffing to achieve productivity of 1.05 worked hours per visit for physiotherapy services at the STRH & supported sites.

(144) The Regional Director should adjust staffing to achieve productivity of 0.76 worked hours per visit for physiotherapy services at Bonne Bay and LeGrow Health Centres.

(145) The Regional Director should adjust staffing for Occupational Therapy at Western Memorial Regional Hospital to achieve productivity of 1.14 worked hours per visit.

(146) The Regional Director should adjust staffing for Occupational Therapy at Charles L. LeGrow Health Centre to achieve productivity of 1.14 worked hours per visit.

6.7 Diagnostic Services

(147) The Regional Director, Laboratory services should review and revise as necessary the proposed test

menus and equipment requirements, in relation to the clinical service adjustments arising out of this review.

(148) The VP Clinical Operations and the Regional Director, Diagnostic Imaging services should expedite acquisition and implementation of a regional PACS in WHCC.

(149) The VP Clinical Operations and the Regional Director, Diagnostic Imaging services should develop a comprehensive capital equipment replacement and renewal strategy.

6.8 Support Services

(150) The Regional Director, Nutrition services should establish a net operating cost performance target equivalent to $27.24 net cost per inpatient & resident day[89].

(151) The Regional Director, Nutrition services should investigate the business case and feasibility of migrating away from conventional production either through capital investment or outsourcing arrangements including retail operations.

(152) The Regional Director, Materials Management should establish a net operating cost performance target equivalent to 3.03% of total direct care net operating costs.

(153) The Regional Director, Materials Management should review the sterilization requirements for each location with the goal of consolidating activity to serve the region from one Sterile Processing operation.

(154) The Regional Director, Environmental Services should establish a cost reduction target equivalent to 5% of current departmental net operating costs.

(155) The Regional Director, Environmental Services investigate the business case and feasibility of further consolidating laundry and linen services.

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[89] Measured in 2003/04 dollars.

(156) The Regional Director, Facilities Services should establish a cost reduction target equivalent to 5% of current departmental net operating costs.

(157) The Regional Director, Facilities Services should initiate internal and external benchmarking of operational processes to identify approaches to further reduce the cost of plant operations and maintenance in the region.

6.9 *Administrative Services*

(158) The VP Corporate Services and Chief Financial Officer should consolidate Financial Services at a single location.

6.10 *Information Technology*

(159) The Director of Information Technology should review the current IT staffing complement for potential to redesign roles and/or processes to address EPR implementation projects.

(160) The Director of Information Technology should develop an IT strategic plan that specifically addresses the short-term information and communication needs of the organization.

(161) The CEO should use available surplus funds to increase investments in acquiring information technologies and supporting and expanding information systems in the region.

7.0 *Opportunities for Service Rationalization and Realignment*

7.1 *Primary Care Clinics*

(162) The VP, Rural should revisit its plan for the location of the continuing clinic in White Bay and ensure that adequate consideration has been given to the natural flow of patients.

(163) The Board should implement its plan to consolidate clinic services into 13 continuing sites in the region.

7.2 *Health Centres*

(164) The WHCC should discontinue elective deliveries at the Dr. Charles L. LeGrow Health Centre.

(165) The WHCC should discontinue elective surgeries requiring general or regional anaesthesia at the Dr. Charles L. LeGrow Health Centre.

(166) The VP, Rural and the VP Medicine should ensure that patients are not held for observation at the Rufus Guinchard Health Centre but are either admitted to an inpatient bed or discharged.

(167) The VP Medical Affairs should ensure that the adequate medical coverage is provided for the community served by and the patients of the Rufus Guinchard Health Centre.

(168) The RMAC should review, develop guidelines and processes and improve the referral process between the more remote facilities within the Corporation and medical staff and services in Corner Brook.

(169) The VP, Rural should eliminate the observation area at the Bonne Bay Health Centre and patients should be either admitted to an inpatient bed or discharged.

7.3 Hospitals

(170) The WHCC should discontinue elective deliveries at the Sir Thomas Roddick Hospital.

(171) The WHCC should discontinue elective surgeries requiring general or regional anaesthesia at the Sir Thomas Roddick Hospital.

(172) The VPs Operations for Bay St. George, Rural and Corner Brook should develop processes for the transfer of ALC patients from WMRH to STRH.

(173) The RMAC should require Most Responsible Physician participation in discharge planning that begins at, or before, the time of patient admission to the hospital.

(174) The VP Medical and the RMAC should arrange for the consolidation of all obstetrical deliveries in the Region at the Western Memorial Regional Hospital.

(175) The VP Medical and the RMAC should arrange for the consolidation of all surgical services requiring general or regional anesthetic in the Region at the Western Memorial Regional Hospital.

8.0 Summary of Savings

No Recommendations